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This index contains in a single alphabetical sequence the names of authors and subjects of all articles published in THE MODERN HOSPITAL during the six months covered by this volume. The following abbreviations indicate special departments in which articles appeared: Ab., abstract in Current Hospital Literature; Bk. Rev., Book Reviews; Corr., Letters to the Editor; Ed., Editorials; Q. and A., Queries and Answers.

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THE MODERN HOSPITAL

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HIGH HOSPITAL BUILDING PROVES A SUCCESS

By EDWARD STOTZ, Architect

THE MERCY Hospital, situated within a few blocks of the business center of Pittsburgh, and one block back from the trolley and main traffic thoroughfare, is admirably located for easy access, and is also in a quiet zone. The hospital has occupied a portion of the present site since May, 1848, its first building facing Stevenson Street. Since that time other property has been acquired and additional buildings have been erected, culminating in the construction of the new wing finished and occupied in 1918, an addition which doubled the capacity of the institution.

GIVE THE ARCHITECT TIME!

Adding a new wing to fulfill present needs and also anticipate future growth is often a more difficult problem than planning an entirely new building. By careful study and planning on the part of the management and the architect, however, the problem can be solved, as in the case of Mercy Hospital, Pittsburgh. The architect must not be hurried, but must be given almost unlimited time to consider the problem and draw up the plans. To centralize in one wing all dealings with the public is a plan worthy of note. Quite as interesting is the building of a hospital nine stories high. The straight lines so secured beget simplicity and orderliness.

In recent years substantial additions have been made, notably the surgical wing, a modern fireproof structure containing seven operating rooms and an operating amphitheater. The amphitheater seats 175, and in addition to serving its purpose admirably, has, strange to relate, excellent acoustic properties.

A block 334x364 feet with fifty-foot streets, which insures against encroachment, is occupied by buildings that cover 80 per cent of the ground.

Another plot 103x248 feet across the street belongs to the institution. Upon it is located the nurses' building, which also contains the power plant for the entire institution. This building is connected with the main building by a bridge over the street, which enables quick communication, but still leaves the nurses well isolated. A tunnel under the street connects the main building, and all mechanical service lines pass through this tunnel.

The main steam, water and similar services are carried throughout all old and new buildings in tunnels of the minor corridors, furnishing easy access directly from the boiler room to all vital parts of the system.

The nurses' and power building occupies about 35 per cent of the ground area. It is fireproof and capable of further extension in altitude.

Throughout the various building operations, the hospital kept up its work without serious detriment, and, with former seemingly impossible achievements, still looks forward to extensions and to the gradual elimination of some of the older buildings. The development by units or additions from time to time, while good in itself, eventually produced an unbalanced plan, as the administration, kitchen, and other departments related to the entire institution became unsymmetrically located and out of center.

The last operation was for the purpose of reassigning and replacing undersized and improp-

Vestibule of main entrance, Mercy Hospital, Pittsburgh, showing admission window and information bureau.

An abundance of fresh air and sunlight are afforded all who visit this roomy, screened-in roof garden.

Seventh floor corridor.

The modern, Southwest Wing shown in the exterior is in marked contrast to the portion of the old building of 1848 which forms an ell at the rear. In front of this ell, a flower bedecked enclosure offers a cheerful outlook.

—

The main entrance, pictured at the right, combines dignity and grace of design.

The lobby and sun parlor on the eighth floor are comfortably and luxuriously furnished.

—

The bookkeeper's office and record room lack nothing in the way of convenience.

erly placed departments so that they would bear a proper relation in the plan. A study of the drawings published herewith will show the accomplishment of this purpose in a logical way, together with an allowance for future growth.

This relatively simple problem in an entirely new building involves considerable study when complicated by varying floor levels, and when composed of buildings built at various times for other detailed use; but persistent and conscientious study on the part of the management and the architect is well repaid, as was notably the case in this work.

As simple, direct language conveys a thought best, so straight lines in planning serve to give sense of direction and eliminate confusion, as well as reduce construction costs. This thought was held constantly in mind in the plan adopted and built as the addition, and as the central wing of a future development. This new

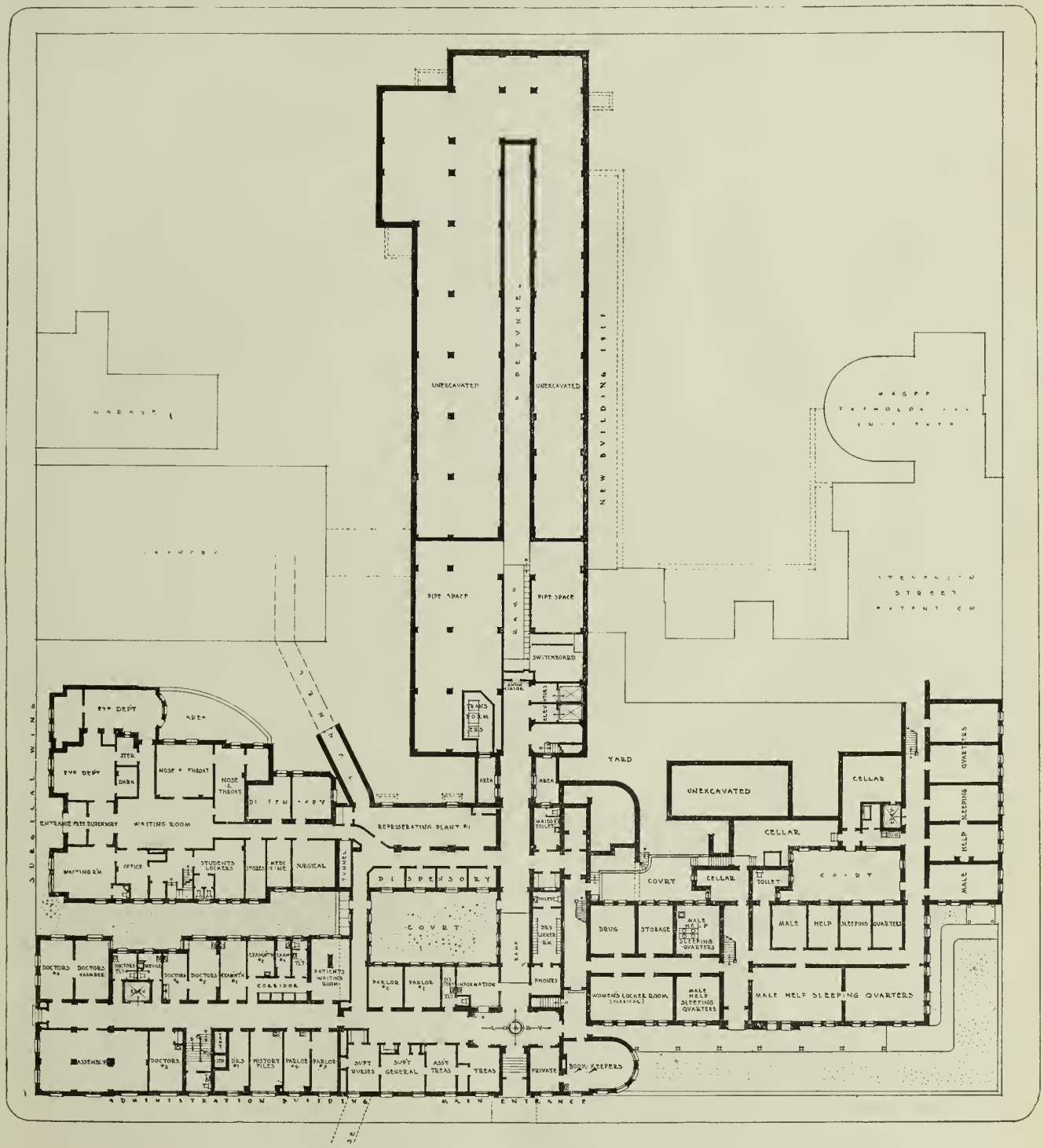

Fig. 1. The first floor is given over entirely to offices and administration. A feature appreciated by the staff is the private corridor to the left of the entrance, opening into small rooms which are private offices for the exclusive use of the staff.

wing, which is nine stories in height, is 260 feet long and sixty-five feet wide on the lower floor, while the upper floors are fifty feet wide.

The new wing was located on the main axis directly in the center of the property. Connections and alterations were made to existing buildings, and a main entrance was established with the necessary administrative offices, so that aside from ambulance and tradesmen and free dispensary, all traffic would be under direct control immediately after the person entered the building. Interior telephones and communicating devices were converged at this center, and the administrative staff were grouped, so that all business with the public or patients could be expedited.

The first floor is given over entirely to offices and administration. A feature generally appreciated by the staff is a private corridor immediately to the left of the entrance and opening into small rooms. These are private offices for the exclusive use of the staff, who furnish them individually. The advantage to the hospital

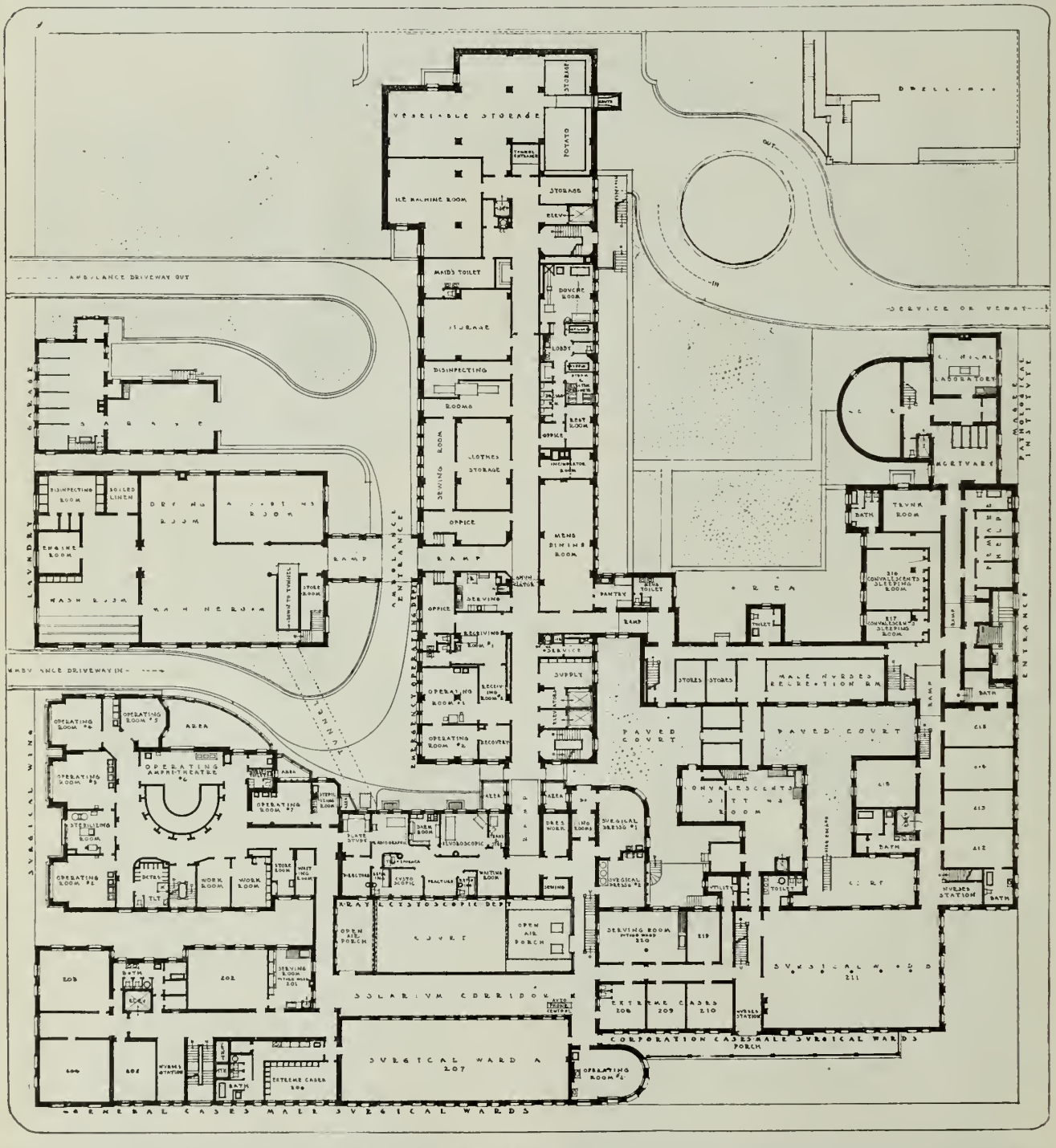

Fig. 2 On the second floor are the receiving and emergency operating rooms, the x-ray plant, general operating rooms, surgical amphitheater, and several large general surgical wards, making it a complete surgical unit in itself.

of such accommodations is increased concentration of work in the hospital, in addition to the fact that the staff gradually spend more time in the hospital and consequently are in more constant touch with the patients. Adjoining the staff rooms are the record rooms and social service department. Connected with the first floor of the hospital, and occupying the ground floor of the operating pavilion, is the dispensary, consisting of fifteen consulting and treatment rooms, in addition to a large, wide reception hall and special laboratory.

Owing to the sloping ground on which the hospital is built, the second floor of the new building opens directly on the driveway. The receiving and emergency operating rooms, six in number, connect immediately with the x-ray plant, which in turn, adjoins the general operating rooms and large surgical amphitheater with accommodations for 175 students. On this floor in the new build-

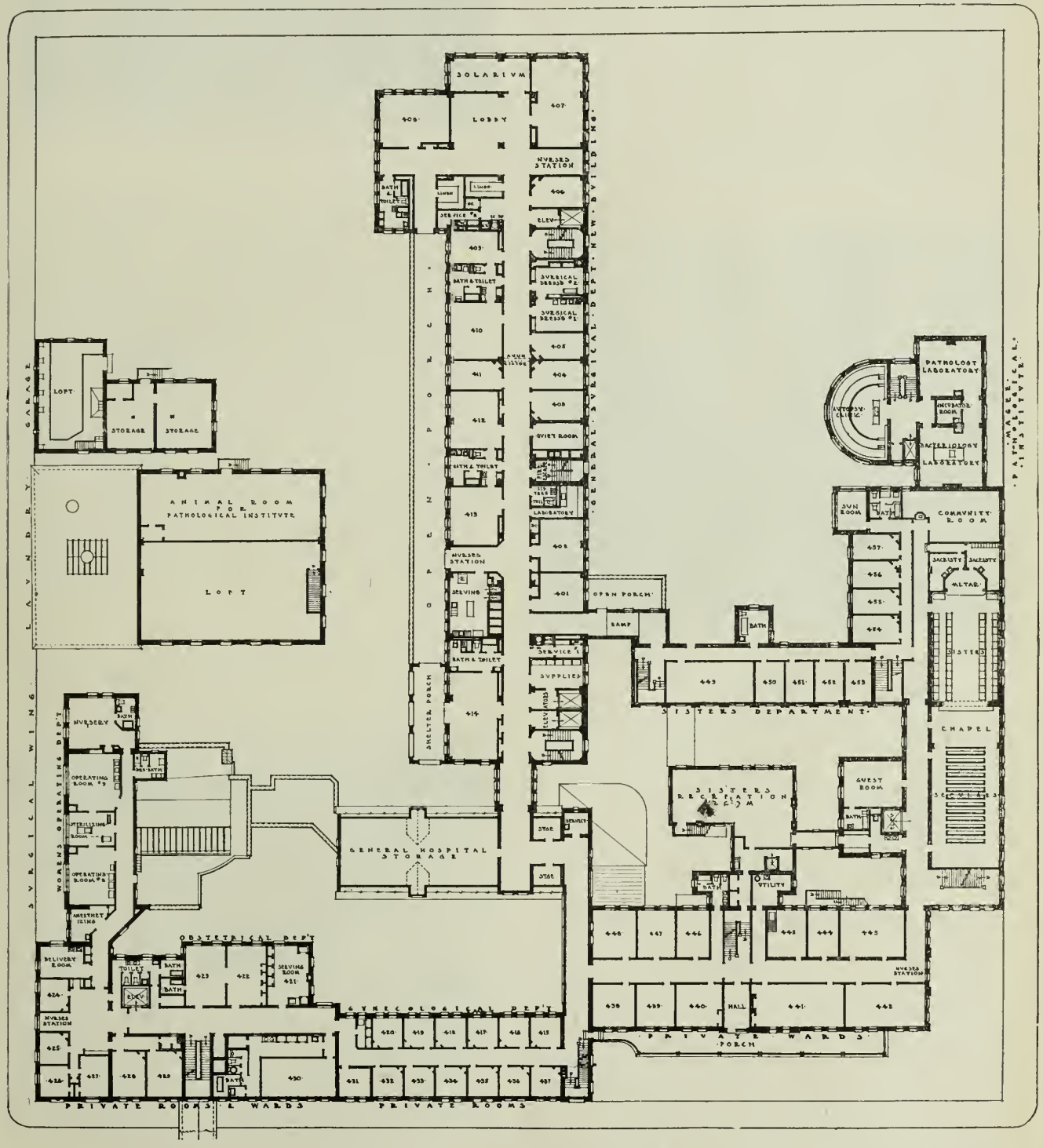

Fig. 3. The gynecological wards, obstetrical department, and gynecological operating rooms are all on the fourth floor, having no direct surgical connection with other parts of the hospital. In the east wing is the hospital chapel, accommodating over 250 persons.

ing is the hydrotherapy department which was recently put into operation. The former emergency operating rooms of the old building have been converted into a newly equipped electrocardiogram department, thorough in every respect, including rest rooms, examination offices, and dark room for developing. Several large general surgical wards complete this floor, making it a complete surgical unit in itself.

The culinary department comprises a complete plant on one floor, unusually well-lighted, all above ground, and methodically arranged so that from goods delivery entrance there is no lost motion, and supplies after being checked go directly to their storage or point of use. This department while occupying the third floor of the building is, due to the grade line, accessible from the yard in the rear where all supplies are delivered.

Fig. 4. View of x-ray department. The receiving and emergency operating rooms, six in number, connect immediately with the x-ray plant, which in turn adjoins the general operating rooms and large surgical amphitheater.

Trucks carry the food from the storage department to the points of preparation, thence to the ranges and cooking devices, and on to the serving counters. The trays are complete when they reach the food elevators. These elevators are automatic. One serves each floor, a signal light and buzzer indicating its arrival. This arrangement insures prompt and methodical service with a singular absence of lost motion.

The daily average number of patients in the hospital is 525. In addition there are 45 Sisters, 50 attendants, 125 male and female help, and a large number of special nurses, so that altogether from 700 to 800 are served from this kitchen three times a day. It may be added that the nurses' home has a completely equipped kitchen, not included in the above. Trays for every patient are served directly in the general kitchen of the hospital, and, by means of four-tiered carriages, each holding sixteen trays, the food is distributed to the patients without rehandling. There are six electric automatic elevators in the kitchen, one leading to each floor of the new building. The loaded carriages with sixteen trays are placed in the elevator, and in this manner it is possible to serve every patient in the hospital within five minutes after leaving the distribution tables in the kitchen. After use, the trays are returned to the kitchen in the same manner. The question as to odors and noise from the kitchen has been frequently asked, but a one-year trial, even with limited help, has proved the success of the plan.

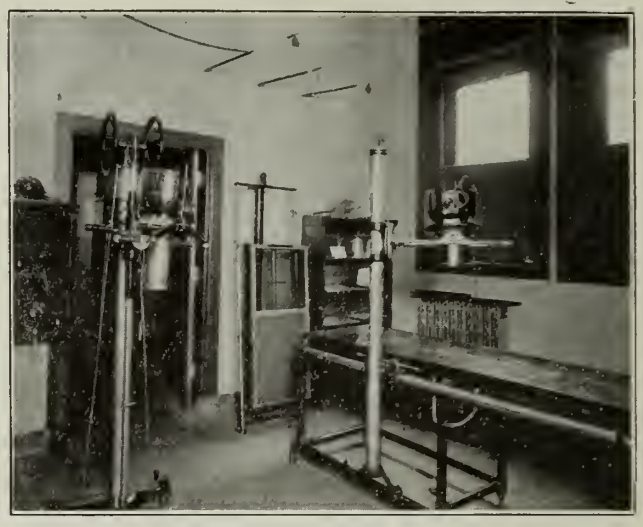

Fig. 5. Another view of x-ray department, which is on the second floor.

A complete system of introduction and removal of air to the culinary department has eliminated all odors.

The details of this department, the working out of which required months of study and adjustment in plan, would form an exhaustive article in itself, but those interested will appreciate the

Fig. 6. View of general bath room.

Fig. 7. Room on eighth floor with private bath. The entire eighth floor is given over to private rooms, many of which have private baths.

relations and sequence of the several departments by a consideration of the economies in time, space, and motion thus accomplished.

The fourth floor of the new building is given over entirely to gynecological semi-private rooms and wards of four and six beds, connected directly with the gynecological operating room, delivery rooms, and nursery, in all about eighty-five beds. The plan of having all the gynecological wards, obstetrical department, and operating rooms on one floor furnishes a complete unit in itself, which has no direct surgical connection with other parts of the hospital, and eliminates the use of elevators in transporting patients to and from the operating room. On this floor in the west wing is the hospital chapel, accommodating over 250 persons.

The fifth floor of the south wing of the hospital is occupied by the Sisters, and in the west wing are the male medical wards and surgical annex. The sixth, seventh, and eighth floors of the new addition are private rooms only, many of those on the seventh and eighth floors having private baths, or being *en suite*. At the extreme south end of each corridor of the new department is a lounging and reading room, connected with an enclosed sun parlor, which extends the entire width of the building. All private rooms have telephone connections and the electric light call system is used throughout the hospital.

Fig. 8. Private room on seventh floor.

The ninth floor is divided into two, four, and six-bed wards for surgical diseases of women and children. An isolation suite of two double rooms, baths, and nurses' quarters is a feature on this floor which is of great value in an emergency. Every alternate floor is equipped with a clinical laboratory for routine examinations, while the large general laboratory is in a separate building, but connected with the hospital proper.

Fig. 9. View of children's ward on the ninth floor. The ninth floor is divided into two, four, and six-bed wards for surgical diseases of women and children.

The roof, reached by elevator, is provided with shelter house and toilets and is fitted for a promenade. From this point a superb view of the city can be had. The available surface for this purpose is 9,000 square feet.

The adoption of a comparatively high building resembling the office building in type, for hospital purposes has thus far proved a complete success. The patients are pleased, the administration is greatly improved, when compared with the same population in half the number of stories, and much valuable ground is saved.

The building was constructed of fire-proof materials throughout. Foundations are of concrete, supporting a complete steel frame, with curtain walls of brick thirteen inches in thickness, and all outer walls furred on the inside with two-inch tiles. The face brick are vitrified and non-absorptive, and are laid in cement mortar. Interior walls and partitions are either brick or tile and all partitions are non-bearing.

The floor construction throughout is of the "T" beam type of reinforced joist with tile fillers cov-

Above is a view of electrical treatment room, showing cabinet and chair used for the administration of electrical treatment, and other furnishings.

The hydrotherapy department of the Mercy Hospital, Pittsburgh, has recently been put into operation. It is located on the second floor of the new building, and is thoroughly equipped with modern appliances.

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The illustration in the center shows the continuous bath in the hydrotherapy department.

A view of a rest room in the hydrotherapy department is shown above, illustrating the neat furnishings, dressing table, comfortable wicker chairs, and leather couch.

Below at the left is another view of the hydrotherapy department. The location of this department, on the same floor as the receiving and operating rooms and the x-ray plant, aids in concentration of work.

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In the view of the hydrotherapy department at the right the cabinets for vapor baths are shown.

ered with a four-inch floor fill in which all service lines are buried. No such pipe or conduit engages any structural material.

The stairways are of the enclosed type of reinforced concrete, terrazzo finish, with simple iron balustrades and stairways, and are provided with fire type metal doors and windows throughout. In addition, a fire escape of iron enclosed by brick walls with openings to outer air is extended from top floor to grade.

The elevators are all of ample size to carry a bed or stretcher and are entered through a secondary vestibule, so that doors cut them off effectually from the corridor, and when closed absolutely prevent any mechanical sounds being heard. Special care was used to insulate the motors (which are overhead), secondary floor construction being installed below the machine platforms, so that no sound from motors is transmitted to the shaft or other parts of building. Aside from the mechanical contact of the metal latch on the doors, it may be properly termed a silently operating plant.

Wall surfaces, their intersections with floor and ceilings, and all vertical angles were coved and rounded. The standard radius used was seven-eighths inch, this method being effective from a sanitary standpoint, much cheaper, and neater in appearance than the coves of the larger radii sometimes used.

All wall surfaces are continuous and flush regardless of the combination of materials used, thus eliminating all horizontal ledges. This involves considerable care and some expense in constructive preparation, but is very satisfying in appearance as well as practical.

Except in private rooms, where simple wood trim was used, flush metal bucks with round corners were used at all door openings, and all transom adjustors were concealed. Floor materials were tile, marble, terrazzo, composition, or wood, the latter of oak, with wax finish in the private rooms.

Trim and doors of wood were finished in natural white oak, without panels or mouldings. Metal doors were of the same design, painted to match the general tone of the oak.

All work throughout the building was specially

designed and carried out in conformity with full size details of the architect. Despite the harassing conditions brought about by the war, no substitutions or alterations in design or materials in any particular were made, nor were any changes made in the plans during construction other than gaining several private rooms by reducing extent of solariums on several floors. It should be observed that every private room has not less than two windows, and my observation is that even though one window with a greater glass area than two were introduced, it is not as satisfying as two windows to the mind, and lacks the practicability of two in ease of operation and in control of natural ventilation.

A study of the plans will convey a better understanding of the relation of parts than a description. Aside from the few references to salient features I shall therefore not go into the details of the plan.

In the exterior design no definite style has been attempted, the aim being rather the expression of interior functions and a neat and orderly grouping of solids and voids.

Hard, non-absorbent surface brick and terra cotta that are as self-cleansing as possible and materials that will resist local atmospheric conditions and extremes of temperature were used. Wide overhangs and ledges were avoided. The general tone is a soft, reddish brown with a mottling or iron spots.

Future extensions were kept in mind and a comprehensive plan was made that will eventually allow the entire institution or the major part to be rebuilt if desired from time to time, still leaving the central locations of administration and service undisturbed.

Some conclusions may be drawn from the working out of this problem, for the benefit of institutions throughout the country, which are facing similar conditions.

If institutions that contemplate future extension would have all their property surveyed, accurately re-draw every portion of their buildings, and anticipate not the addition of a single department, but the ultimate growth of the entire institution, additions could be made from time to time with a reasonable degree of certainty that the final outcome would be a well rounded group of buildings.

The thought occurs that changes in practice, re-location of departments and increase in population will entirely upset these future plans. Much of this, however, can be anticipated by intelligent architectural service and by the introduction of non-bearing partitions which can be removed or re-located without costly structural changes. To this end large areas should be provided with partitions carrying no loads and readily re-located so that an area serving two departments may be doubled in the future without serious mechanical difficulties.

It is highly desirable that a building once begun be constructed rapidly. But to limit the time for the preparation of the drawings is suicidal. Many ill-considered plans are attributed to the architect, which were in fact so hurriedly prepared that deliberation and study were almost out of the question and neither party to the transaction was satisfied. The fees were the same, but the owners' haste was a penalization for all time, as many will testify, who leave legacies of wrecking and remodelling.

Time may be properly the "essence" of a construction contract where action and multiplication of labor can make haste with good results, but *study* is the essence of good planning, and the more real experience and knowledge the architect possesses the more he will demand time to render a service that shall be of real and permanent value to the institution.

The problem of most of the older hospitals is seldom fairly solved. Each generation adds its bit to what was originally a complete building, and, in the course of time, these sporadic additions leave an unbalanced group, with the units that should be centrally located remote or unsuitably placed, and the consequent penalties paid in cost of maintenance, as well as in the lack of sequence in relation of one department to the other—all of which are decidedly detrimental from every viewpoint.

It takes courage as well as vision to outline a project that may be years in growth, to disrupt and rearrange and reassign existing departments, and to deliberately tear down part of an institution that has been in satisfactory use and a revenue producer for years. But like the burning of wrecked rolling stock on the railroads to save the expense of repairs and lost motion on the main line, it is a foregone conclusion that it pays to destroy that which hinders normal growth. This is as true in institutional planning as it is in the removal of weeds from a garden.

In the present instance the time, care, and forethought of Sister M. Innocent and her associates, together with their years of experience, enabled the architect to work in a spirit of cooperation to a common end.

No detail was too small to receive due consideration, or to be relegated to the background as unimportant, for the ultimate success of every building is its complete visualization in detail, before any part of it is erected.

AIR CONTROL AND THE REDUCTION OF THE DEATH RATE AFTER OPERATIONS

By ELLSWORTH HUNTINGTON, Ph.D., Research Associate in Geography, Yale University, New Haven, Conn.

Part I.—Humidity

AN IMPROVEMENT of 20 per cent in the results of operations would be an achievement for which the world might willingly pay millions of dollars. Yet such an achievement seems to lie easily within our grasp: it could apparently be brought about simply by giving the air of hospitals and sick rooms the proper temperature, humidity, and variability.

All kinds of ailments show a surprisingly close correlation with temperature, humidity, and variability.

Different types of disease, however, respond differently. For surgical operations the best condition, as indicated by the records of two large Boston hospitals, is high humidity, 80 per cent or more, directly after operations, and moderate humidity, about 60 per cent at a temperature of 64°, a few days later.

Such conditions can easily be produced artificially. This would probably cause an improvement of not less than 20 per cent in the results of operations.

Although such a statement sounds highly optimistic, it seems justified by abundant evidence, part of which has already been published in "World Power and Evolution" and in an article[1] in the first number of *Modern Medicine*, and part of which will here be set forth. To sum up the published evidence, an analysis of 60,000,000 deaths in many countries indicates that the death rate not only depends upon climate and weather, as is well known, but is far more sensitive to slight atmospheric variations than is generally supposed.

The condition of the air is the fundamental cause not only of the difference between tropical and other countries, but of large fluctuations in the death rate from year to year, and of a multitude of smaller fluctuations in health from day today

The Optimum for Health

The study of these millions of deaths teaches three main lessons. First, the health of most parts of the world is best when the average temperature for day and night together approaches closely to 64° F., which is the optimum for the white race. Second, and more important because less expected, at all temperatures up to the optimum, dry air does far more damage than moist; while, even at higher temperatures, extreme dryness is worse than a moderate degree, although not as bad as extreme moisture. At a mean outdoor temperature of 64° the optimum relative humidity is about 80 per cent, which means dew at night and a humidity of perhaps 60 per cent at midday in clear weather. Equally unexpected, and equally opposed to the common belief, is the third lesson, that variability in the air is just as important as in diet or occupation. A climate or room in which the atmospheric conditions vary frequently but not unduly on either side of the optimum is decidedly more healthful than one that remains uniformly near the optimum.

Diseases vs. Aspects of Climate

Thus far we have been speaking of health in general, but different diseases react differently. For example, in "The Interpretation of the Death Rate by Climographs"[1] it is shown that epidemics, taken as a whole, are checked by dry heat, although this may entail increased mortality from other causes.

Similarly Greenberg[2] has found that mortality from pneumonia diminishes when either the temperature or humidity increases, although his figures are not conclusive for high temperatures. Thus, although all types of disease may be ameliorated under the influence of the general optimum herein defined, each apparently has its own peculiar relation to certain aspects of climate. The same is probably true of different ages, of the two sexes, and of people of different occupations, physiques, and temperaments.

The Atmosphere and Operations

In order to remove all doubt in this important matter I have begun an investigation of different ailments and different types of people with a view to determining the best conditions in each case.

1. Huntington, Ellsworth: The Interpretation of the Death Rate by Climographs, Mod. Med., 1919, I, 13.
2. Greenberg, David: Relation of Meteorological Conditions to the Prevalence of Pneumonia, Jour. Am. Med. Assn., 1919, lxiii, 252.

The present article deals with operations of all sorts except traumatic, these being omitted because the weather conditions which cause accidents are presumably quite different from those which govern the speed of recovery among surgical cases in hospital. The operations have not been subdivided because of the difficulty of obtaining a sufficient body of data without undue clerical work. The problem is to determine whether the condition of the air at the time of operations and immediately thereafter has anything to do with the success of the operations. The answer is emphatically positive. Deaths after operations show not only the familiar seasonal variation due largely to temperature, but also an equally strong relationship to humidity and to variability. The present article considers humidity, while variability will be considered later.

Method of Investigation

The method of investigation employed in this article is briefly as follows: At the Boston City Hospital (1914-1918) and the Massachusetts General Hospital in the same city (1906-1915) tables were prepared showing the dates of all non-traumatic operations which were followed by death before discharge from the hospital. These were divided into groups as appears below. Operations not followed by death were all put in a single group because any attempt to estimate their success brings in the fallible factor of human judgment, whereas death is an absolute criterion, universally recognized. This group is used only as a standard from which to measure the departure of the other groups. The cases followed by death were then compared with the conditions of the outside air as recorded by the Weather Bureau. Comparison was first made with the conditions on the morning of the operation, and a distinct relation became clear. When the weather on the succeeding morning was used, however, the relationship became much clearer. This is natural, for the critical time is immediately after the operation. Accordingly, unless otherwise noted, all statements as to the weather refer to 8 a.m. of the morning after the operation.

The Problem Stated

Among the questions to be answered immediately were: (1) does any particular kind of weather hasten death after operations? (2) how long does the weather of a single day continue its influence? Table I gives the answers. It shows how the weather at 8 a.m. on the morning after operations which resulted in death at the Boston City Hospital differed from the weather on similar mornings after operation which did not result in death.

For example, the first section of the table shows cases in which death occurred at once or on the first day after the operation. From January to March the average temperature was 0.62° higher, the relative humidity 6.1 per cent lower, and the amount of vapor per cubic foot in the air 0.095 grains less than when none of the operations resulted in death. For the year as a whole, as appears at the bottom of the table, the figures are inconclusive; although the temperature was relatively high and the humidity low, the amount of water vapor was more than the average because of the higher temperature.

Some Unexpected Conclusions

In the next section where death followed the operations after 2 to 4 days, the evidence is more conclusive. The weather was cool and dry at practically all seasons, for only 4 of the 15 signs in this section are plus and the rest all minus. In the section where death followed after 5 to 10 days the tendency toward dryness and coolness is

TABLE I

AVERAGE WEATHER CONDITIONS AT 8 A. M. ON DAYS AFTER OPERATIONS FOLLOWED BY DEATH, AT BOSTON CITY HOSPITAL, JANUARY, 1914-SEPTEMBER, 1918

KEY
A = *Number of cases.*
B = *Departure from average temperature at 8 A. M. on days after operations, none of which resulted fatally.*
C = *Departure from average relative humidity ditto.*
D = *Departure from grains of water per cubic foot ditto.*

Length of interval from operation to death.

	0-1 days—Section I				2-4 days—Section II				5-10 days—Section III				Over 10 days—Section IV			
	A	B	C	D	A	B	C	D	A	B	C	D	A	B	C	D
Jan. to Mar..	71	+0.62	—6.1	—.095	67	—1.55	—1.3	—.098	74	—0.31	—4.4	—.067	52	+2.36	+0.8	+.241
Apr. to June.	73	+2.49	+4.4	+.341	66	+0.92	+0.2	+.250	48	—0.24	—0.9	—.116	46	+0.85	—1.7	+.065
July to Sept..	59	+0.04	—0.5	—.002	47	—2.52	+2.2	—.067	34	—0.57	—2.1	—.236	35	—0.82	—0.7	—.201
Oct. to Dec...	32	+1.81	—3.2	+.033	40	—0.14	—3.9	—.248	30	—1.26	—3.9	—.214	30	—0.26	—1.9	—.073
Year	235	+1.24	—1.35	+.089	220	—0.82	—0.65	—.041	186	—0.60	—2.80	—.158	163	+0.53	—0.88	+.008
	(9 plus, 6 minus)				(4 plus, 11 minus)				(0 plus, 15 minus)				(7 plus, 8 minus)			

NOTE.—The averages in Table I give equal weight to each month. This is accomplished by reducing the figures in column A (for each month) to percentages of the total number of cases for the month. Thus March, with 105 deaths, has the same weight as November with 36, and the influence of the seasons is thereby eliminated.

still more marked, for all the signs are minus.

When death is delayed more than 10 days, however, the effect of the weather immediately after the operations seems to disappear, for in this section no marked tendency is observable. Yet even after this long interval, days with low relative humidity seem to produce a bad effect since most of column C is minus. Thus dry air immediately after an operation appears harmful, and the effect seems to last 10 days, more or less. It seems odd that the effect should be greater from the fifth to the tenth day than earlier, but during the first day or two the question of life or death presumably depends primarily upon the degree of shock, and only after the first struggle is over does the full influence of the air become clearly differentiated from the influence of the operation.

Air Conditions Influence Death Rate

We are now ready to find out just what effect on the death rate is produced by any given combination of temperature and humidity. It would be well to use only deaths occurring within 1 to 10 days after operations, but the records of the Massachusetts General Hospital, although ideal in most respects, enable the lapse of time from the operation to death to be determined only by the laborious process of looking up each case individually in the original record instead of merely in the index, while those of the Boston City Hospital are not easy to use prior to 1914. Hence, for the present we shall use all deaths after operations. This does not alter our results but merely makes them less striking than they would be otherwise.

Effect of Temperature

Table II shows the number of deaths per day following operations performed when the weather conditions next morning were as indicated at the top and on the left. The lessons of the table as to temperature are summed up in the "Total" column on the right. The small number of deaths, 0.383 per day, at a temperature of 51°-60° shows that the relation of operations to temperature is essentially the same as that of health in general; for 51°-60° at 8 a.m. includes to an average of about 64° for night and day together. The low figure for very hot weather, 0.324, merely means that under such conditions surgeons do not operate if they can avoid it.

Humidity Modifies Effects of Temperature

Although temperature is presumably the most important climatic element, its effects are profoundly modified by humidity, as appears in the body of Table II. Notice how the figures for temperatures of "over 80°" and "71°-80°" are large on the left where low humidity is shown, fall to a minimum at about 60 per cent, and rise again on the right where the humidity is high. At temperature below 70° Table II discloses a favorable tendency at low humidities, but this appears not to be due to humidity, but to the fact that cold waves, which are usually stimulating when they first occur, are regularly accompanied by dry weather. We shall return to this later. In spite of a few pronounced cold waves, however, dry weather at temperatures below 70°, or more probably below 64°, is as a rule harmful. This is clearly apparent in Table III, which is a con-

TABLE II

DEATHS PER DAY AFTER OPERATIONS WHICH WERE FOLLOWED BY SPECIFIC CONDITIONS OF WEATHER. BOSTON CITY HOSPITAL, JANUARY, 1914-SEPTEMBER, 1918, AND MASSACHUSETTS GENERAL HOSPITAL, 1906-1915

Temperature at 8 a. m. day after operation	Relative Humidity at 8 a. m. on day after operation							
	40% or less	41–50%	51–60%	61–70%	71–80%	81–90%	91–100%	Total
Over 80°	..... (0–0)	1.000 (2–2)	0.182 (2–11)	0.083 (1–12)	0.750 (6–8)	0.000 (0–1)	..... (0–0)	0.324 (11–34)
71°–80°	0.937 (15–16)	0.489 (22–45)	0.244 (21–86)	0.280 (34–121)	0.347 (42–121)	0.500 (49–98)	0.775 (24–31)	0.399 (207–518)
61°–70°	0.333 (3–9)	0.329 (28–85)	0.470 (69–147)	0.417 (88–211)	0.365 (78–214)	0.410 (93–227)	0.346 (64–185)	0.393 (423–1087)
51°–60°	0.375 (6–16)	0.466 (28–60)	0.470 (47–100)	0.433 (77–178)	0.361 (70–194)	0.405 (74–183)	0.271 (55–203)	0.383 (357–934)
41°–50°	0.091 (1–11)	0.279 (12–43)	0.629 (71–113)	0.493 (80–162)	0.398 (84–211)	0.477 (75–157)	0.415 (73–176)	0.453 (396–873)
31°–40°	0.800 (12–15)	0.368 (18–49)	0.556 (83–149)	0.431 (102–237)	0.416 (79–190)	0.417 (56–134)	0.401 (85–212)	0.422 (435–986)
21°–30°	0.250 (3–12)	0.462 (30–65)	0.524 (54–103)	0.401 (55–137)	0.445 (50–112)	0.535 (38–71)	0.450 (22–49)	0.460 (252–549)
11°–20°	0.562 (9–16)	0.685 (26–38)	0.421 (32–76)	0.416 (32–77)	0.485 (17–35)	0.368 (7–19)	0.250 (4–16)	0.458 (127–277)
10° or less	0.545 (6–11)	0.133 (2–15)	0.447 (17–38)	0.740 (20–27)	0.650 (13–20)	0.400 (2–5)	0.000 (0–0)	0.500 (58–116)

NOTE.—To use the table, find the required temperature on the left and the relative humidity at the top. The decimal number at the point where the lines of temperature and humidity cross shows the number of deaths per day after operations performed when the weather at 8 a. m. of the next day was of the indicated kind, each hospital being reckoned as a separate unit and the two being simply added. The left hand number in parentheses indicates the number of deaths following operations performed when the given combination of temperature and humidity prevailed at 8 a. m. next day, while the right hand number shows the total number of such days.

densed summary of Table II. Notice that at temperatures below 70° the decrease from left to right, that is from low humidity to high, is almost perfectly regular.

The Norm Under Favorable Conditions

The last two columns of Table II are especially interesting. Column D shows the deaths per day under the most favorable circumstances. Except above 70°, where the figures for a humidity of 51-60 per cent (0.237) has been added in parentheses, the most favorable conditions are clearly the moistest. The next column, E, shows the percentage by which column D, using 0.237 instead of 0.775, is less than the corresponding average for all days of a given temperature, as given in the right hand column of Table II, or else as obtained from that table by a slight calculation. In other words, the percentages in column E indicate the amount by which the death rate would have been reduced if the air at all times had been as good as under the most favorable conditions.

It is noteworthy that favorable conditions of humidity at temperatures above 70° are even more important than at lower temperatures. A little of the excellence of column D may arise from a drop in temperature due to rainy spells in the warmer months, but humidity is by far the most important element. If the outdoor air had contained its optimum complement of moisture, and if the indoor air had therefore been correspondingly modified, the deaths would apparently have been diminished by 16.8 per cent. Artificial humification would apparently produce equally desirable results.

TABLE III

SUMMARY OF DEATHS PER DAY IN RELATION TO WEATHER

Temperature at 8 A. M. day after operation	Humidity at 8 A. M. on day after operation				Advantage of Column D over average for given temperature
	Under 6%	71–80%	81–100%	91–100%	
	A	B	C	D	E
Over 70 ..	0.413	0.316	0.561	0.775 (0.237)	(40.0%)
61–70	0.415	0.391	0.381	0.346	12.0%
51–60	0.460	0.395	0.334	0.271	29.2%
41–50	0.503	0.440	0.444	0.415	8.4%
31–40	0.531	0.424	0.407	0.401	9.3%
30 or less.	0.491	0.458	0.456	0.400	13.6%
Weighted average					16.8%

True Importance of Humification

In estimating the importance of humification it must be remembered that various factors tend to make our results less striking than they really are. In the first place, we have been using all deaths after operations, including those occurring *before* the hour of our weather records and those so long after the operations that the effect of the initial conditions may have wholly disappeared. In order to see how far we have thus minimized our results, let us examine the deaths occurring from 1 to 10 days after operations at the Boston City Hospital. These are summarized in Table IV, which combines certain features of Tables II and III. The percentages in column F rise higher than in the corresponding part of Table III, column E, and their average, 23.2 per cent, rather than the former figure, 16.8 per cent, seems to be a fair measure of the influence of humidity immediately after operations.

A second reason why our results appear less striking than they really are is that, even when the air outdoors is saturated, the humidity within doors may still be much too low. If saturated air from outside is taken into the house and heated to 64°, its relative humidity becomes approximately as in Table V.

Only the last of the percentages in Table II is as high as is desirable after operations; hence even in the best winter weather artificial humification is needed on a considerable scale. Con-

TABLE IV

SUMMARY OF DEATHS PER DAY AT BOSTON CITY HOSPITAL COMPARED WITH WEATHER AT 8 A. M. ON DAY AFTER OPERATIONS, AND CONSIDERING ONLY THE DEATHS OCCURRING ONE TO TEN DAYS AFTER THE OPERATION

Temperature	Relative Humidity				Total	Advantage of D over E
	60% or less	61–80%	81–100%	91–100%		
	A	B	C	D	E	F
Over 70°	0.230 (8–35)	0.213 (19–89)	0.383 (18–47)	0.200 (7–35)	0.263 (45–171)	31.5%
61°–70°	0.320 (24–75)	0.292 (36–128)	0.264 (37–140)	0.254 (16–63)	0.283 (97–343)	10.2%
51°–61°	0.268 (15–56)	0.309 (30–123)	0.215 (24–112)	0.117 (7–60)	0.264 (77–291)	56.6%
41°–50°	0.477 (24–50)	0.270 (33–122)	0.352 (34–99)	0.347 (17–49)	0.336 (91–271)	—3.3%
31°–40°	0.463 (24–53)	0.355 (44–124)	0.317 (39–123)	0.312 (24–77)	0.357 (107–300)	12.0%
30° or less.....	0.387 (48–124)	0.316 (47–149)	0.327 (20–61)	0.228 (5–22)	0.355 (115–324)	35.8%
Weighted average						23.2%

versely, in warm weather the air should be dried and cooled before being admitted to operating rooms and wards. There is as much reason to cool the summer air as to warm that of winter. With such treatment of the air we may reasonably hope that the death rate may be reduced not only to the level which now pertains to air with the best natural conditions of humidity, that is, by 20 per cent or more, but to a still lower level.

Greatest Humidity Immediately After Operations

A third factor which reduces the striking quality of our results is that thus far we have considered the humidity of only a single day. That first day, to be sure, is the most critical, for the patient is under the full shock of the operation; yet other days are also important, especially the day of death in cases where the patient lives beyond the first day. Accordingly, Table VI has been prepared to show the number of deaths per day when various weather conditions prevailed on the day of death. This table is based on 571 operations which were followed by death on the second day or later. It agrees with the others as to both high and low temperatures. At high temperatures extreme dryness, 0.372, is not as good as moderate dryness, 0.276; but extreme humidity is much worse, 0.462. At temperatures below 50° the death rate decreases quite steadily with increasing humidity.

At intermediate temperatures, however, the most favorable conditions appear to shift gradually with temperature so that at all times they correspond as nearly as possible to an indoor humidity of not far from 60 per cent after the air has been heated and has received the usual increments of moisture from furnaces, from peoples' breath, and from other sources of evaporation. This suggests that, whereas immediately after an operation the relative humidity should be as high as practicable, that is 80 per cent or more, it should gradually be diminished so that after a few days it averages about 60 per cent when the temperature is 64°. Even that, however, is about twice as great as the humidity of the ordinary house or hospital in winter.

From the foregoing facts it appears that if the right conditions prevailed at the time of operations, and if there were also a gradual change to somewhat dried but still comparatively moist conditions after the operation, each process would entail a theoretical decrease of nearly 20 per cent in the death rate. This, be it remembered, takes account of only two days, the one directly after the operation and the one when the death occurs. If the days between these two were considered, the effect would be still greater. Hence the hope that proper attention to humidity may cause a saving of 20 per cent in the total death rate after operations seems conservative.

TABLE V

RELATIVE HUMIDITY OF SATURATED OUTDOOR AIR AFTER BEING TAKEN INTO HOUSE AND HEATED TO 64°

Outside Temperature	Approximate relative humidity indoors at 64°
25°	24%
35°	36%
45°	52%
55°	75%

How to Attain Humification

The actual process of humification is relatively simple, although most of the humifiers now on the market are inadequate. At least two processes, however, are comparatively effective. One is where warm air is blown through a shower of spray; the other, which is much cheaper for buildings where the heating plant is already installed, consists in suspending cloths like wicks with their lower ends in dishes of water and with their upper parts spread out back of radiators or in other suitable positions. This method is explained in detail in an appendix in "World Power

TABLE VI

DEATHS PER DAY AT AN INTERVAL OF TWO DAYS OR MORE AFTER OPERATIONS AT THE BOSTON CITY HOSPITAL, COMPARED WITH WEATHER CONDITIONS ON THE MORNING OF DEATH

Temperature at 8 A. M.	Relative Humidity at 8 A. M.							Advantage of underlined conditions over average
	40% or less	41–50%	51–60%	61–70%	71–80%	81–90%	91–100%	
	A	B	C	D	E	F	G	H
Over 70°	.....	0.372	0.276	0.339	0.379	0.461	0.462	28.5%
	(0–1)	(2–11)	(11–23)	(6–35)	(21–54)	(20–35)	(6–13)	
61°–70°	.....	0.200	0.238	0.246	0.312	0.308	0.270	12.1%
	(0–3)	(7–21)	(8–51)	(15–54)	(21–74)	(28–77)	(17–63)	
51°–60°	0.25	0.375	0.324	0.314	0.291	0.334	0.400	11.8%
	(1–4)	(5–22)	(15–30)	(16–59)	(17–64)	(18–52)	(24–60)	
41°–50°	.....	0.320	0.318	0.262	0.243	0.243	0.286	5.8%
	(0–4)	(4–12)	(12–34)	(13–45)	(16–77)	(11–50)	(14–49)	
31°–40°	.....	0.415	0.430	0.414	0.429	0.385	0.325	21.8%
	(0–3)	(5–10)	(17–40)	(30–71)	(21–53)	(22–46)	(25–77)	
30° or less	0.546	0.379	0.420	0.369	0.387	0.277	0.227	39.7%
	(6–11)	(14–31)	(27–82)	(46–94)	(16–55)	(12–42)	(5–22)	
							Weighted average	9.3%

NOTE.—Deaths occurring on day of operation and on the next day are omitted because already considered. In this table, unlike the others, the figures for deaths per day, but not those in parentheses for number of deaths and number of days have been smoothed by averaging groups of three in each horizontal line. This is because the number of cases is less than elsewhere, and smoothing is needed to obliterate accidental variations. Such variations are probably the reason why the line for 61-70° continues to diminish to the left of column D.

and Evolution." A practicable modification, where hot air is used, consists of a series of non-inflammable wicks placed in the hot air chamber with their lower ends in pans of water and their upper ends suspended from sprinkling pipes with rows of holes opening on both sides of the wicks. An automatic valve in the pans opens when the water becomes too shallow, and thus allows the sprinklers to play on the wicks until enough water trickles down to fill the pans again.

Whatever method of humification is used, it must be remembered that if the air is to be comfortable and healthful, it must be comparatively cool. Air with a temperature of 65° and a relative humidity of 70 per cent, as any one can see on many a day in the spring and fall, feels perfectly comfortable to people who want a temperature of at least 70° when the air is dry in winter. It must also be remembered that variability as well as humidity is needed.

The evidence that health could be much improved by proper humidity seems overwhelming. So, too, does the evidence that the human organism is amazingly sensitive to slight changes in the atmosphere. Nevertheless, our knowledge of the whole subject is still very imperfect. Hence everyone who tries experiments along the lines here indicated is urged to publish the results, or at least to communicate with the author or with the editors of this magazine.

ENTERTAINING SICK AND CONVALESCENT CHILDREN IN THE HOSPITAL AND AT HOME

By MARY HAMMOND BARKER, Kindergarten Supervisor, Worcester, Mass.*

AT the time that Dr. Thomas Howell was superintendent of the Worcester City Hospital, a need arose for a course of study for nurses in "Ways and Means of Diverting and Entertaining Convalescent Children." It had been found that while a young child was actively ill the trained nurse fully commanded the situation. However, the time of convalescence was tiresome for both nurse and patient, from lack of knowledge on the part of the nurse of some simple means of diverting and entertaining these children. These means are largely handcraft, children's literature (stories to be told, and stories to be read aloud), games, and plays.

The superintendent of the hospital sought the superintendent of public schools. It was decided, in conference, that a kindergartner should be loaned to the City Hospital for class work of one week's duration each spring. For twelve years these classes have been attended by the junior nurses, save for a few exceptions where, through illness or other causes, a senior nurse missed her course the previous year. The theory underlying the handwork, games, and other devices presented to the class is that of diversion through playful employment.

THE IMPORTANCE OF DIVERSION

The importance of handwork, stories, and games in the bed and chair cases in the hospital or the home is sometimes not realized. Lack of diversion is often the cause of irritability in such children.

The trained nurse should have at her command certain devices to divert the children's attention, to stimulate mental activity, and to train the hands to prevent forming of bad habits of idleness.

Dolls and toys which will fascinate the children can be fashioned out of old boxes, cans, paper, string, bottles, and practically anything that could not otherwise be utilized.

Psychologists claim that diversion is a legitimate point in educational method. The teacher diverts wandering attention into definite channels and diverts the dawdling child by means of helping him to find incentive for work and play in his own environment.

A surgeon tells the story of a young kindergartner whose small nephew was to undergo a long and exhausting operation. The condition of the child prevented the use of anesthetics. To divert the child, the young aunt began a vivid story while the surgeon worked. The story grew to amazing proportions. Impossible as it may seem, the child's attention was kept.

However, the real place for handwork, stories, and games is with the bed and chair cases in the hospital or the home. They are largely orthopedic children held prisoners by casts or anemic or tubercular children detained in bed, either at home or in the wards of the hospital. These children need stimulative employment and also regular teaching that they may return at the end of their illness to their schools without losing their grade. It is suggested that one

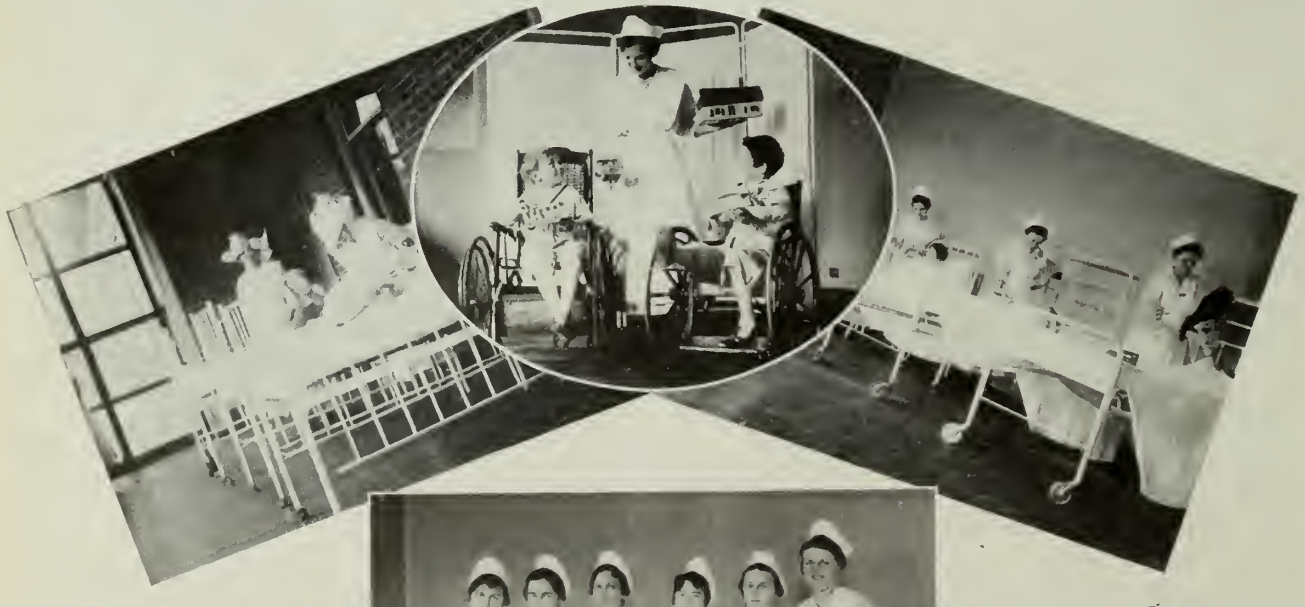
*This is the first of a series of articles on the recreation and entertainment of children in hospitals.

or more experienced teachers should be appointed to just this class of children in all public hospitals for teaching regular school studies. This would be a truly economic move on the part of school authorities, because children who have been out of school a long time are slow in passing through the grades and become what are called "repeaters." A child who repeats a grade doubles the cost of his education each year. Then there are the numberless children in every city who are recovering from contagious disease where the bed has become a bore and life a misery for the attending mother or nurse. The child with a broken leg, or an adult for that matter, sometimes suffers more from *ennui* than from physical pain. Probably seventy-five per cent of the irritability of sick children, except in cases where the temperature runs above normal, or when the child is suffering from excessive pain, is due to lack of diversion. The busy mother has a double task when nursing is added to her household cares. She can seldom stop to tell a story, fold a soldier cap, or cut a string of paper dolls. The trained nurse, wonderfully efficient as she is when the treatment is a matter of medicine, baths, bandaging, and all the daily round, is often more helpless than the mother.

Of course no little girl patient could be quite content without a doll.

The mind of a child rebounds much sooner than the body and demands its food. Irritability arises unless the child's normal interests are allowed expression. Then, there are chronic cases where long weeks of detention in the hospital have brought about habits of mental idleness. The child's mental growth is arrested. When a child has been very ill, and it is true of grown people too, interest in achievement needs to be aroused and curiosity awakened. In the case of serious illness the desire to be active mentally starts before physical expression is allowable.

In the course in handcraft, children's literature, games, and plays, the trained nurse should have at her command certain devices, first, to divert the children's attention from the discomforts of illness; second, to stimulate mental activity in



As the day was hot and sunny, and the light on the porch was bright, the nurses made fascinating newspaper sun hats for the children and themselves. Wheel chair cases especially need the work shown in the illustration in the center above—aeroplanes, automobiles, doll houses, and other toys.

The Junior nurses shown in the illustration to the right of the center have just come from the classroom with their arms full of toys made from any available box or paper, and are distributing them among the little patients in the orthopedic ward. In the illustration below we see a group of nurses of the Memorial Hospital, Worcester, Mass.

cases of long standing illness, and train the hands to prevent the forming of bad habits of idleness. These long time cases suffer when they return to school from lack of power of concentration, and both physical and mental effort are at a low ebb. The desire to do, to be active, has been lost in the enforced inactivity. All the games in the town piled on a table beside a sick child, and these topped by all the children's books known, will not do the stunt. The sick child needs companionship, leadership, good-fellowship. He needs wise urging and wiser control.

The Competent But Not Entertaining Nurse

A charming woman told me, the other day, that her recovery from a recent illness was due to a mad desire to dismiss her really wonderfully efficient nurse. Knowing Miss M—, the wonder referred to, I failed to comprehend how any sick person who was sane and had the money to pay the rate could wish to dismiss such a treasure.

"While I was terribly ill and took no notice of time, day time or night time, then Miss M— was superb," she explained. "But when the long days of recovery came—days so much like one another that they seemed to resemble endless colorless beads on the string of eternity, then I needed diversion. Miss M— could nurse, but not divert.

" 'Whom did you see on your walk this afternoon, Miss M—?' I would ask.

" 'No one I knew,' she calmly replied.

" 'Where did you go?' I asked, hoping for a bit of color.

" 'Oh, just around here.'

"To have the long, endlessly long, afternoons broken, I would beg for entertainment.

" 'What did you do when you were a little girl, Miss M—?'

"Her answer was, 'Not much of anything.'

"My angling was not productive. Miss M— is not a public entertainer, but she is a corking nurse."

This woman makes these suggestions to all training schools for nurses: "Please direct the student nurses never to sit on the edge of a patient's bed. Never to describe her own experence (or that of any member of her family) when her appendix was removed. And to cultivate imagination."

Habit of Inactivity a Detriment

Inactivity has a depressing effect on both mind and body. The habit of the majority of human beings is to be well, to be active in thinking and doing. Sickness breaks up this habit. After a long and depleting illness, or enforced idleness, the nurse or mother should urge, or rather inspire the patient to take up again the instinctive work activities that make for a normal life. Mental satisfaction and physical strength are gained more quickly this way. A habit of getting well is established in some cases. The interrelation of mind and body from the standpoint of health is too subtle a subject for a layman to handle. But I do know that all the scars with which a patient, young or old, rises from his bed are not physical. Too often they are mental and not measurable.

Being creatures of habit, and habit-forming an instinct in man; during any kind of prolonged inactivity, this habit of instinct can play upon the depressed physical and mental self to the lasting detriment of character. Those who "enjoy poor health," as the New England saying goes, are the victims of bad habits formed during an illness.

If you could see a group of junior nurses who have just come from the class-room with their arms full of toys made from any available box or rag, enter an orthopedic ward, you would quickly say, "It would be hard to decide whether the children or the nurses enjoyed the toys the more."

Making Toys Out of Almost Nothing

Much of the work to be considered in these articles was designed for the use of district nurses since they find so little to do with in the way of materials for toy-making in the homes they are called to. As a result, a scheme of toy-making has been developed from paper bags and boxes; dolls of clothes-pins; dolls made from clothes-brushes; stocking dolls; glove dolls; straw dolls; a stick of wood with a towel pinned about it; newspaper dolls; bottle dolls; rag dolls. Most any container in which food comes to the kitchen can be turned, by a clever district nurse, into a fascinating toy that whiles away the hours for a shut-in child. Once a child sees the possibilities of a box, he, too, is inspired to make toys. The next visit of the nurse will find an automobile made from a shoe box or a circus wagon from a shredded wheat box. Milk bottle tops will masquerade as wheels. Three pieces of kindling wood may be converted into an aeroplane. A baking-powder tin may be transformed into a musical instrument,—a squawker. Make a hole in the bottom of a tomato can, or other can, with a nail. Run a heavy cord through this hole. Tie a knot in the end so it will not pull through, try it and see if it will squawk!

Method in His Madness

Asylum Attendant—Why are you wheeling that wheelbarrow upside down?

Inmate (who is detailed to help in reconstruction work)—Well, I had it right side up this morning and somebody put something into it!—*The Strix, Stockholm.*

A PLEA FOR EDUCATION OF YOUNG MEN AS NURSES

By BENJAMIN F. BAILEY, M.D., President and Chief of Staff, The Benjamin F. Bailey Sanitarium, Lincoln, Neb.

SIXTEEN years ago, I began to realize the hardships and dangers that must, in certain times of emergency, become an integral part of the work of a young woman nurse. In the consideration of the subject, I was not unmindful of the maternal touch that makes for the apparent greater tenderness and patient endurance of the woman as exercised toward the weak or helpless. But lest the ideal rather than the practicable be a deciding factor, the experiences in the study of the developing sexes offered a field for consideration. The home with boys alone lacks in the development of the children the touch of fraternal thoughtfulness that is engendered by the sisters' presence. The call to a brother for the shielding interest toward the sister is his first conscious awakening of the chivalry that should mark his attitude toward his wife and all womankind. The home with girls alone loses the early appreciation of the normal relation between the sexes in which the male tends to shield and protect the woman, while she sacrifices for and ennobles him who shields.

Value of Co-Education

For these very reasons, co-education in its natural and continual association between the growing boys and girls establishes a relationship that is of the open, frank, "good-pal" sort, devoid of that touch of mystery and suggestion that endangers the life and morals of those raised in seclusion. These thoughts, with those that must naturally follow, led to a summary of the advantages of the proper education and registration of male nurses, to those of the nursing profession, the hospital staff, and the sick.

It is altogether probable that if we could know the incentive that was back of the first conception of a training school, we should find that it was as much a desire for a systematic and military discipline in the corps of great hospitals as for the providing of competent nurses for private cases. It is a well-recognized fact that the institution that has a well-organized training school for nurses does more even, effectual, and consistent work than does the institution that depends entirely upon graduate nurses subject to call. In the one there is the discipline of the army, each one looking to the superior officer for guidance and authority. In the other there is the ever present human fear of each one that his territory be infringed upon.

If these thoughts were instrumental in the development of the training school for young women, they are worthy of consideration in the case of the education of young men. Although there have been almost no schools for the training of young men, there have been demands for them. In every place (and especially in the army and navy and great charity hospitals) there have been ill-trained, only occasionally reliable young men called in to assist in the care of the sick, usually under the name of orderlies or attendants. They have been like "birds of passage," "floaters," and have won what knowledge they have in the care of the sick in a superficial way, and not by a well-outlined course both didactic and clinical.

Nursing Profession an Honor

The establishment of a department for mental cases in the institution of which it is my pleasure to be the head, brought me necessarily in contact with the difficulties of untrained, unskilled men who labored without a goal in view. So I argued that if the medical profession is an honor, so might a profession whose duty it is to be the helpmeet of the medical profession be an honorable one. If it is an honor to young *women* to belong to such a profession, it seems equally, if not more, honorable for young *men* to belong to such a profession. For if their opportunities are not greater, perhaps their sacrifices in the interest of others may be. After years of trial we have found that it gives to us the discipline of the army, the spirit of the school, and the harmony of the home.

Male Nurses

Before the war, we had no difficulty in securing young men from the best of families with from two years to a complete course of high school preliminary education to take up the work. The work has not been in vain, for in two months we gave up these fourteen young men to the service of their country as nurses in the medical department (I think without exception). Having kept closely in touch with them, I believe we are warranted in stating that they made good and that the units in which they were placed will testify to the added efficiency in the case of "or-

derlies" who were really trained nurses. Our course has had as its goal the completion of a full course, the passing of the state examinations, and the registration under the State Board of Nurses.

Advantages of Training Class

In brief, a training class for the male nurses has these advantages: First—it leads to a symmetrical development of young men and young women along lines of mutual helpfulness. It gives to them a thorough knowledge of the functions and purposes of the sex life, so that it comes to be to them a purpose in life to guide the sex-life of their fellows whom they serve to a safe and sane fruition without prudery and without abuse. In this service the male nurse yields to his sister the entire field of service to her sex except as he stands ready and within call to face any emergency where prompt physical action may be necessary. The young woman nurse yields to her brother in the profession the charge of his fellowman except where he may need her assistance. When she is called upon for help she responds in all efficiency, without false modesty, and filled by the very presence of the male nurse with a consciousness of the practical and possible preservation of a wholesome and normally modest reserve.

Second—this assignment to the male nurse of the male treatments that involve genito-urinary attention saves the young woman from a common familiarity that has often been a procursor of commonness but does not prevent her from developing the sense of duty and knowledge of her work that makes for efficiency in time of emergency. It protects her from any obnoxious attentions of the men whom from duty she must serve. In delirious and similar cases the presence of the young man nurse insures a degree of safety and a sense of satisfaction that cannot be present when there is a lack of physical strength. In the continual heavier work that comes up in daily hospital routine, a nurse of the training corps is far more to be desired than the orderly whose work is of the day, with no particular goal in view.

Family Spirit Enhanced

Third—the school and family spirit of the corps is enhanced, which after all is the desired acme for the atmosphere of the hospital that would be equipped with every scientific possibility, yet always be suggestive of the home. It offers, too, between the sexes, a certain fraternal rivalry in studious accomplishment that has proven helpful and thoroughly worth while.

What does it offer to the young man? It offers him an education, self-sustaining during its acquirement, that can be turned to in time of stress with a certainty of employment at good wages. A young man who is registered as a nurse has an anchor to the wind, and insurance against enforced idleness and positive support in time of need. Not a few of our graduates have taken the course as a means of attaining to a profession which might support them while they prosecuted the study of medicine or dentistry.

Then there is the fact that the entire course may be looked upon as a primary course in the study of medicine, so that the graduate nurse as he enters the portals of the medical college is not entirely in an unknown field. Our course for the male nurse is exactly the same as for the young woman until we reach the branches of obstetrics and gynecology, and then his work and study is devoted to the genito-urinary anatomy, physiology and pathology of the male and his nursing.

The hospital has an increased efficiency in a better-assured safety from the increased physical strength of the nursing corps, from the possibility of taking equally good care of the sexes, and from the presence in the school of the higher type of young men that are looking to a later study of the professions of medicine or dentistry.

The patient, aside from the more perfect care that can be assured by the co-education of the sexes, seems really to bask in the sunny, homelike atmosphere that can only be acquired by the mingling of both sexes in a brotherly and sisterly helpful way.

A TRUE NURSE

A true nurse, one who realizes the great honor conferred upon her by the privilege of nursing and caring for the sick, more particularly the very poor sick, cannot be uneducated, since a full conception of the high calling of nursing is not for the mind of the uncultured to grasp. At the same time sympathy, refinement, patience, are some of the qualities of a nurse, and it does not need a knowledge of languages or other deep learning to imprint these on the heart of a good woman.—*The Nursing Mirror.*

ONE WAY OUT OF DARKNESS

To the blind soldiers music is a true life-saver. Their problem of readjustment is a difficult one. Their sense of hearing is daily becoming more acute, and with it is developing an appreciation of harmony which many did not know they possessed. Orchestras have been formed among these men, who play well, but there is always a group eager for instruction, and teachers of music are repaid for their efforts in coin of inestimable value. Red Cross instructors have been willing to teach many hours a day in the endeavor to satisfy the need of the patients.

NEW HOSPITAL BUILDING REPRESENTS RESULT OF THREE YEARS' STUDY

By LORING B. PACKARD, M.D., Superintendent, Brockton Hospital, Brockton, Mass.
EDWARD P. DANA, Architect

The trustees of this hospital had the problem of planning a new building which would take care of immediate needs as well as keep within the limited funds. The building was only attempted after three years of thoughtful study. The expansion provides for many new departments with modern equipment, as well as the addition of private rooms and wards. Outstanding features of the Brockton Hospital, Brockton, Mass., are the unqualified success of the artificial lighting, the carefully worked out color scheme, and the unusual comfort of the private rooms. Facilities for fresh air treatment are afforded by the large balconies extending across the south front, and the screened-in roof.

THE new building of the Brockton Hospital, Brockton, Mass., which has recently been opened, represents in concrete form the result of three years' study of the needs of the different departments with especial consideration given to their comparative rate of expansion and demand for service. With a limited amount of funds at their disposal, the trustees were obliged to sacrifice some apparently desirable features in order to provide others which seemed of more immediate necessity.

The location of the old hospital buildings on the grounds forced all expansion to the east, with the buildings lying longitudinally east and west. With this situation in mind, all the wards and private rooms, so far as possible, were given a south and east exposure, with a large sunning balcony extending practically across the full length of the south front on the first and second stories. Access to the balcony is obtained through wide French windows, through which a litter may be easily wheeled.

These balconies serve a three-fold purpose: (1) they furnish sufficient balcony space for outdoor treatment of every patient in the building; (2) they screen the rooms and wards from excessive glare from the sunlight; (3) they furnish a readily accessible fire escape from the upper stories to the ground by means of wide stairs at either end, which are of sufficient width to enable a litter to be carried down conveniently.

By taking advantage of the natural slope of the grounds toward the east, it was found possible to utilize the whole of the basement or ground floor, which ordinarily is practically wasted.

This space then became available for the new x-ray department, mortuary, pharmacy, service entrance (which eventually will connect with future wards built to the north of this building), linen storage and sewing rooms, administration offices, and the out-patient department.

Departments on Ground Floor

The x-ray department occupies the whole of the north wing of the ground floor, and is designed to use the machine already in use at the hospital. The operator's room is centrally located between the fluoroscopic and radiographic rooms; the whole suite is sealed with sheet lead, and there are lead glass observation panels in the doors of the operator's room. The preparation room is directly connected with and forms a part of the suite.

A specially built switch has been installed in the operator's room to shift the current from the radiographic to the fluoroscopic circuits at will, and an emergency cut-out switch is installed in the operator's room, between the meter and the machine on the service feed, which cuts out the complete system.

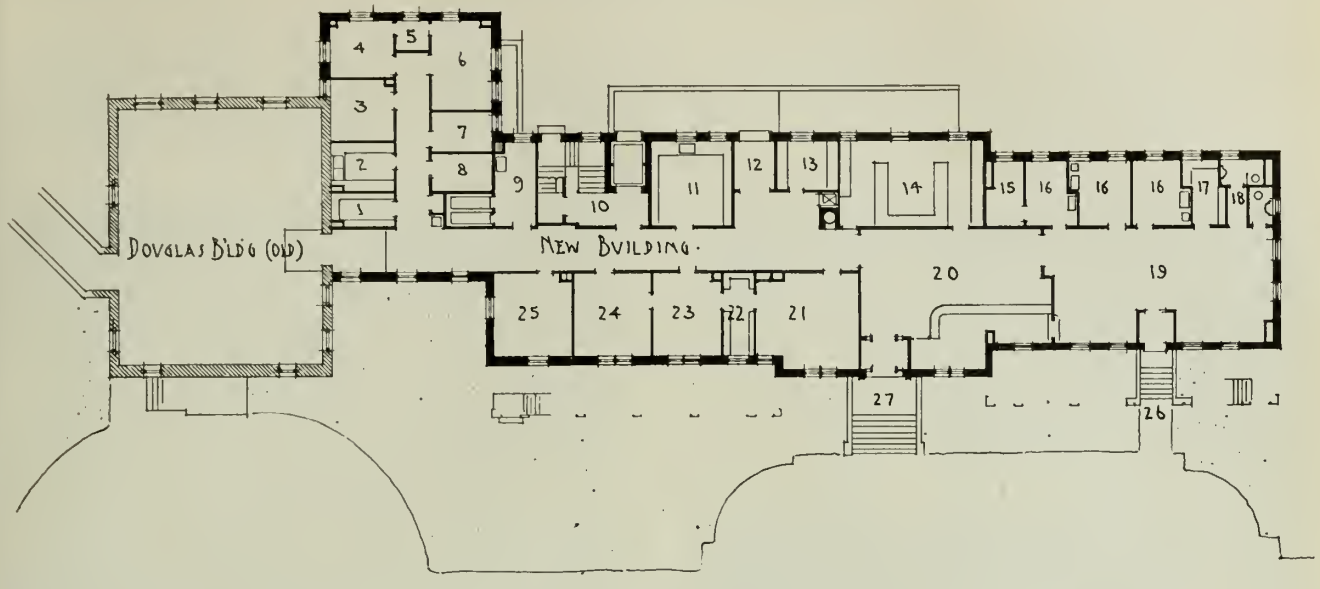
The library for the storage of negatives is located adjacent to the well equipped developing room. It is fitted with shelves sloping toward the back, which are grooved to separate the plates, and reduce breakage to the minimum.

The mortuary is equipped with a modern columbarium built of sheet cork, has a capacity of four bodies, and is fitted with sliding trays.

On the south side of the main corridor, rooms are provided for the administration officers, which are arranged to reduce necessary travel back and forth as much as possible.

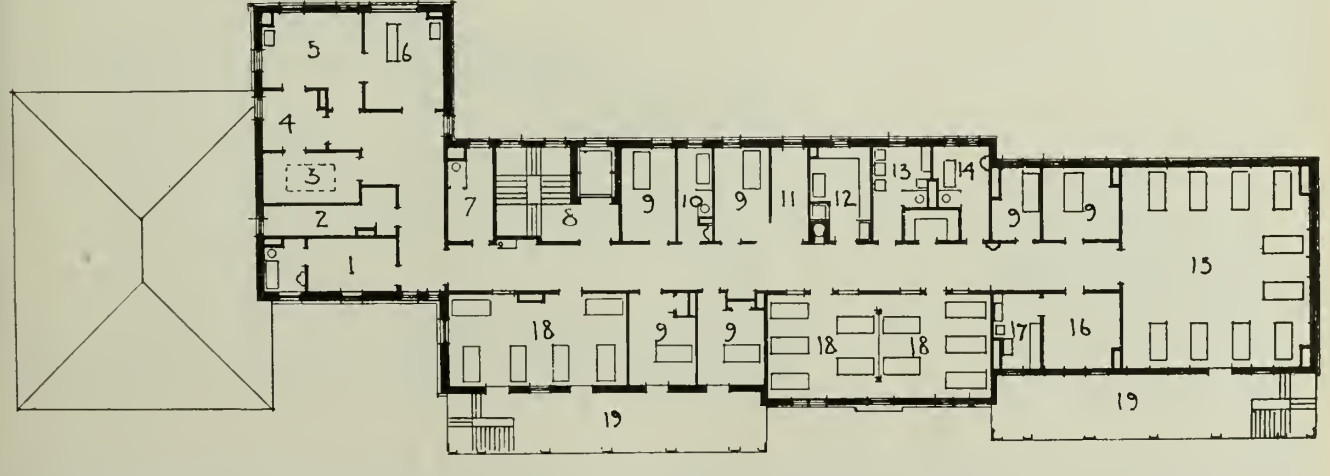
The superintendent has a large, sunny office, convenient of access from the main office with its entrance sufficiently secluded to discourage unnecessary disturbance. A room for files of records lies between the superintendent's office and the book-keeper's room, and is accessible from both.

The out-patients' waiting room is located adjacent to the main office to facilitate supervision;



Ground floor, Brockton Hospital, Brockton, Mass. (1) photographic library, (2) developing room, (3) cystoscopic room, (4) fluoroscopic room, (5) operators' room, (6) radiographic room, (7) preparation room, (8) storeroom, (9) mortuary, (10) stair and elevator hall, (11) pharmacy, (12) service entrance, (13) linen storage, (14) linen and work room, (15) eye, ear, throat, (16) surgical dressing rooms, (17) splint room, (18) toilet rooms, (19) out-patients' waiting room, (20) general office, (21) superintendent's office, (22) records, (23) bookkeeper, (24) matron, (25) storeroom, (26) outpatients' entrance, (27) main entrance.

First floor (Douglas Building), Brockton Hospital, Brockton, Mass. (1) old corridor, (2) old operating rooms, (3) old surgeons' room, (4) old accident room. New Building. (5) sterilizing room, (6) operating amphitheater, (7) surgeons' scrub room, (8) anesthetizing room, (9) interns' room, (10) stair and elevator hall, (11) private rooms, (12) toilet and bath, (13) patients' clothing room, (14) diet kitchen, (15) utility room, (16) ward linen, (17) open ward, (18) small wards, (19) sun balcony.



Second floor, Brockton Hospital, Brockton, Mass. (1) isolation room, (2) patients' clothing room (3) examination room, (4) labor room, (5) birth room, (6) operating room, (7) doctors' room, (8) stair and elevator hall, (9) private rooms, (10) toilet, (11) private nursery, (12) diet kitchen, (13) utility room, (14) bath and toilet room, (15) open ward, (16) nursery, (17) nursery service, (18) semi-public wards, (19) balconies.

in connection there are three surgical dressing rooms, and a special room for eye, ear, nose, and throat, all fully equipped. There is also in connection with this department, a shop for making splints, and toilet rooms for men and women.

General office of Brockton Hospital.

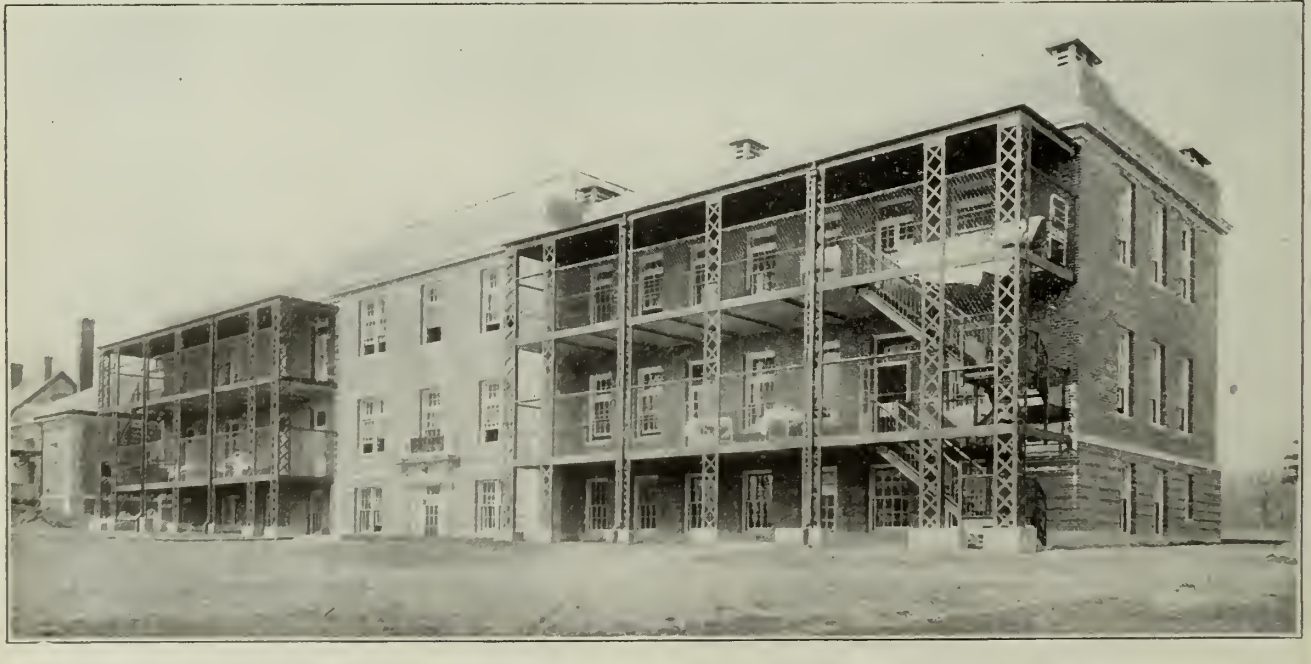
The first floor of the new building is carried through at the same level as in the present buildings, with the main corridor eight feet wide connecting through the Douglas building with the main circulatory system of the hospital.

The new operating suite embraces a large and well lighted amphitheater, and an ample sterilizing room planned to serve the old operating rooms in the Douglas building as well as the new one. The surgeons' scrub room has wash-up sinks, shower, and toilet. The whole suite has flint tile floors, glazed tile dado, and hard plaster walls above the dado tinted a quiet gray-green. The natural lighting of the amphitheater is from the north, and the glass area equals about 25 per cent of the floor area, ensuring an adequately lighted room even on dark days.

The artificial lighting is by means of four pendants semi-indirect, with luminous bowls, and there is an auxiliary gas lighting service for emergency use. Plug receptacles are conveniently located on both sides of the operating table for connection with the spot lights when required.

For the purpose of eliminating noise as much as possible, the stair and elevator halls are completely isolated from the rest of the building by masonry walls, and are accessible through wide, double, swinging doors. The stairs are of fireproof construction with slate treads, and the elevator is automatic in operation, controlled by means of push buttons. The corridor floors are covered with battleship linoleum, cemented down, while the diet kitchen, utility rooms, and toilets have flint tile floors. On the north side of the corridor is a convenient medicine cupboard with a mixing shelf and a bowl of white metal directly underneath. Across the corridor and centrally located, is the nurses' station and indicator for the call system. This system is on a circuit which flashes lights over the door of the room, in the diet kitchen, in the utility room, and at the bedside of the patient.

One of the most appreciated details of equipment is the laundry chute, which has openings at each floor, a flushing ring at the top for washing down the chute, and a sewer connection drained from the bottom. The chute is ventilated.



View from southeast of Brockton Hospital, Brockton, Mass., showing the large sunning balcony which extends practically across the full length of the south front on the first and second stories.

For the convenience of physicians, a lavatory is installed in each of the large wards. There are beds for thirty-six patients on the first floor, sixteen in the open ward, ten in the small ward, six in the semi-public ward, and four private

An open ward in the Brockton Hospital, Brockton, Mass., having windows on three sides.

rooms. The work rooms are centrally located, and the bath and toilet rooms are conveniently accessible for patients.

The second floor was planned particularly for the present accommodation of women and children, but is to be turned over to general hospital use when the maternity building is built. The maternity suite at the west end of the building has been carefully studied for convenience, with the result that the examination room, labor room, birth room, and operating room are all so interrelated as to be immediately available as occasion may demand. The physicians' rest room is conveniently located contiguous to the suite, and an isolation room is provided for delirious or infected cases. A general nursery with a connected nursery service room is located in this story, as is also a private nursery for special cases.

The large ward provides ten beds, and there are six private rooms on this floor; otherwise, the arrangement is practically the same as on the first floor.

A large portion of the roof is decked and screened in with a six-foot iron grille, for use as a playground for children, or for fresh air treatment for other patients. Both elevator and stairs furnish access to this story.

The building is constructed with concrete foundations and underpinning, and brick and tile superstructure with details of architectural terra cotta. The floor construction is of hard pine joists carried on steel girders and columns.

The corridor floors throughout are covered with battleship linoleum, cemented down, while the large wards have maple floors with a linoleum tracker down the center laid flush with the adjacent floor. The main office, out-patient department, and mortuary have a terrazzo floor, and the operating suite, diet kitchen, bathrooms, and utility rooms have floors of flint tile. In the maternity suite, the floors are of magnesia composition, and all other floors are of maple treated with a special preparation which seals the pores of the wood against stains and dirt.

Especial attention has been paid to the elimination of dust collecting devices and corners, all door and window finish being flush with the wall surface, doors of the flush type with coved metal bases; corners and picture moulding all flush. In fact the first impression as you enter the building and look around is that the place is clean.

The artificial lighting of the building has proved an unqualified success. All wall brackets are of solid porcelain and the general lighting is from semi-direct ceiling lights having a translucent bowl which, while directing the light rays to the ceiling, are softly luminous and declare the source of the light without tiring or straining the eyes. There is for each bedside a specially designed reading lamp which has an arrangement for securing it to the wall out of the way when it is not in use.

The plumbing fixtures are the best obtainable; the lavatories are all equipped with elbow action valves and the toilets with acid proof seats.

There is long distance telephone connection from each nurses' station and private room, through the main switch board in the general office.

A steam table with plate warming closet and gas stove attached is a valuable adjunct to the diet kitchens, although inexpensive in cost, as is also the cleanly refrigerators with solid porcelain compartments and water cooling coils.

The heating of the building is accomplished by means of vacuum steam, direct method, and the ventilation by ducts equipped with accelerating coils and calculated to completely change the air in the room every twelve minutes.

There are also blanket and linen warmers in each of the linen closets, and dryers and bedpan warmers in each of the utility rooms.

The color scheme was carefully worked out. For the corridors and public rooms, a light French gray was adopted, for the rooms having a southern exposure a cool delicate green, while for those having an exposure to the north a warm buff. The furnishings were carried out in the same color scheme, making the rooms very attractive.

SOME SMALL COMMUNITIES AND WHAT THEIR HOSPITALS MEAN TO THEM

By MARY KATHERINE CHAPIN, Contributing Editor, The Modern Hospital, Chicago

III—A Rural Community Hospital and Health Center

The method chosen in this brief series of articles is that of a group of sketches from life of a few representative communities with their hospitals.

A rural community hospital and public health center, which is not merely an institution, but the embodiment of a constructive idea, is here described, with special emphasis laid upon the original features of social and medical organization and financial methods.

A hospital may cease to be a mere repair shop, interested only in the cure of the patients within its walls, and become a social institution devoted to the prevention of disease, as well as an active, educational force in the community.

IF there is on the face of the earth a sturdier individualist than the free and independent farmer of the great state of Illisconsin, I should like to meet him. I shouldn't like to be his physician, the teacher of his children, or any officer or alleged superior charged with the administration of the laws under which he lives, for, in the words of one who knows, he takes orders from the so-called authorities "about as gracefully as a cat takes a tub bath."

And why not? In this state the farmer is king, ruling by right both of numbers and of wealth. While the urban population is gaining on the rural nearly 70 per cent was still rural in 1910. The largest city, Monkston, which is also the state capital, has a population of only a little over 100,000. At the last census but an insignificant fraction of the population—less than 3 per cent—was engaged in manufacture. At the same time, Illisconsin was the second state in the Union in the value of farm property, and highest in absolute amount of increase of all farm property during the previous decade.

The 1910 census showed the population of the state (87 per cent of which is native white), practically stationary. Of ninety-nine counties, twenty-eight had increased in population from 1900 to 1910, and seventy-one had decreased. The population of the state as a whole had actually decreased by three-tenths of 1 per cent. Whereas in 1900 the state had stood tenth in population among the states of the Union, in 1910 it was fifteenth.

The local health departments of the state are modest and self-effacing to a fault. The legal provision for their organization seems to anticipate this, for the state code makes no provision for county health organization. The local boards of health consist of the mayor and council of each town, or the trustees of each township, who are to appoint a "competent physician" to serve under them as health officer. The state is not in the registration area.

The ratio of physicians to population (one to every 555 inhabitants) is somewhat higher than the general ratio throughout the United States (one to every 720), according to the Journal of the *American Medical Association.*

Anyone who wants to assay the qualities and the defects of this great commonwealth will find an excellent sample in the southeastern corner. The core of a group of six southeastern counties is Fairhope, a city which, according to state enumeration, had 7,572 inhabitants in 1915. In all this region—an area embracing six counties and segments of three others, with a radius of about fifty miles and a population of about 100,000—while there are, besides Fairhope, several towns of from 2,000 to 1,000 population, most of the names on the map denote hamlets of a few hundred inhabitants or less. Upwards of 90 per cent of the land area of the six counties is in farms. Fairhope, then, is the undisputed metropolis and center of all the countryside, the nearest large city being the state capital, Monkston, a little over fifty miles away. The average *per capita* wealth in these counties is about $200 more than the average *per capita* of the rest of the state. Whereas the decrease in population in the state as a whole was less than one per cent, in these six counties the decrease ranged from 10 to 19 per cent. As in the rest of southeastern Illisconsin, "the average receipts from the dog tax exceed expenditures for the health department."

[1] As indicated in the foreword of this series of articles which began in the November issue, all proper names, whether of towns, counties, states, hospitals, or other institutions, are fictitious, since the purpose of the articles is not to pass judgment on individual communities and institutions, but so to present the facts that other communities may draw from these facts any lessons that may be useful to them.

The American Medical Directory shows 119 physicians within this area, which gives a ratio of one physician to every 832 inhabitants. This is less than the general ratio throughout the United States, and also than the ratio within the state itself.

Although the state law permits the organization of county hospitals, no hospital so organized exists within this area.

I had been attracted to Fairhope by reports which had reached me of exceptional work done by a local hospital there. I had been furnished, however, with the names of five Fairhope institutions. One, an osteopathic sanitarium, had closed its doors some time before my visit. Whether a second still prolonged an obscure and shadowy existence was a matter of doubt. I could not find its elusive proprietor, and Fairhope people did not seem eager to remember its existence, if it did exist.

Two others are conducted by surgeons of some local repute. One of these, which has a capacity of eighty beds but is evidently not in use to half capacity, admits the patients of other surgeons besides its director. The proprietor was frankly resentful and suspicious of any interest in his institution. The other has a capacity of only eight beds and is used only to care for the patients of the proprietor. Here, too, visitors were unwelcome. As all the information I was able to gather concerning these two hospitals was expressed in doubtful negatives, I make no attempt to describe them.

The hospital to which I now come was the one which had brought me to Fairhope. Now and again stray reports concerning it had reached me by word of mouth, and I was desirous of seeing for myself what there was in a little country hospital of not over forty beds which so arouses the interest and enthusiasm of people with widely different points of view. I may as well say at once that I found the Greater Community Hospital of Fairhope to be not merely a hospital, but the embodiment of a big, constructive idea. It views the small hospital, the rural hospital, not as a little imitation Bellevue, but as an institution native to the soil, with problems of its own, to be solved in its own way. After twenty-five years, this idea is still only partially realized, but that is because it is not a paper diagram, but a living, growing organism.

At the time of its inception, the chief difference between this hospital and others built to take care of the practices of local surgeons, was, I suspect, implicit in the mind and character of its director. A many-sided genius he. Surgeons who delight in their profession as he does often find it sufficient to absorb practically all their interest, but it is only the point of departure for him—the springboard for his amazing energy and inventive fertility. He has a social vision, but he is a born fighter and even those who call him visionary concede that he is an adversary to be feared.

The hospital long ago ceased to be a mere repair shop. Hard experience taught the lesson that, in order to do the work of a hospital, it had to be more than that—it had to be an active, educational force in the community—a "motor generator through which social energy is transformed for application to human uses." The idea of a hospital as a self-centered microcosm, interested only in the cure of patients within its walls, has been supplanted by the idea of a social institution devoted to the prevention of disease, with the hospital proper merely the "repair shop in the back yard."

How can such an idea be realized in a democratic way? How can it be realized at all in an extremely individualistic community, well satisfied with itself and highly indifferent to the whole subject of health? It has been partially realized only through indomitable perseverance, inexhaustible resourcefulness, and single-minded devotion to an unvarying purpose, directed toward the organization of the community for the purposes of health. The device through which this end is sought is a "Greater Community Association," of which both individuals and groups may become members.

This association is a very ingenious device for imposing the methods of active, working democracy in health matters on a community whose ideal of democracy is passive—"Let me alone and I'll let you alone." Although the hospital is much older than the association, it is impossible to explain the working of the former without reference to the latter. Legally, the Greater Community Hospital became the property of the Greater Community Association less than a year ago. Actually, the same hand that launched the venture is still at the helm, as indeed it needs to be if the craft is to be kept afloat.

I am not going to try to describe in detail the very ingenious and complicated mechanism for organizing the community. Membership in the association carries with it the privilege of voting for the general board, which selects the board of governors, and also for the board of regents who control the hospital. The fee ($25, good for life) is the same for individuals and organizations. Schools, churches, clubs, Red Cross Chapters, medical societies, city councils, board of county supervisors, and school boards are eligible to membership. The activities of the hospital and the

public health activities of the association are kept distinct, the former being under the control of the board of regents, and the latter of the board of governors.

The theory of the financial organization of the hospital is most interesting. "A hospital that renders service in accordance with modern standards is about as good a prospect for dividends as an orphans' home or a Sunday School," runs the text of one of the many wall charts which constitute a distinctive feature of the hospital. The Greater Community Hospital is intended neither to make a profit nor to dispense charity. At the same time, it is not intended that any one who needs hospital care shall be deprived of it for lack of means. The hospital is not endowed; endowments for free beds are not sought (the use which is made of endowments will be explained presently), and, as it is not organized under the county hospital law, it has no public funds at its disposal. How, then, can charity patients be cared for? Through the Greater Community Association in this way:

Theoretically (I am not sure how strictly the theory is adhered to), while a charity patient receives free medical service, his maintenance in the hospital is to be paid for at the same rate as that of any other patient who receives the same service. If the board of county supervisors will meet the patient's expenses, well and good; if not, it is the task of the association to endeavor to find the social group—church or other local institution—which will meet the expense of the patient's care.

The charges are based on the cost of service, and, so far as I was shown the figures, a small accidental surplus for one year would about balance a small accidental deficit next year. The *per capita per diem* expenses and receipts for 1918 balanced to a cent—$3.41. The present rates are $5 a day for private room and bath, and $3.50 for a bed, whether in a private room or in a ward, without a private bath.

The medical organization at the hospital consists of the medical director (who is also the chief surgeon and the mainspring of the whole works), the "attending staff," closely identified with the work of the institution, and the "general staff." To be a member of the "general staff," a physician must be a qualified practitioner, must agree to cooperate with the Greater Community Association, and must be willing to give his professional services free when necessary as a matter of public spirit and good citizenship. To be a member of the "attending staff," he must be a member of the "general staff" and of the Greater Community Association, must show evidence of more than ordinary proficiency, and must have his work on record. He must also develop a line of work and a standing of his own. While "there is only one boss" the attending man "is not expected, nor will he be permitted, to be a parrot." One man I heard mentioned with particular appreciation because "he was from Missouri" so far as taking any one's word was concerned. No one man's opinion determines an operation except in case of emergency, I was told.

The attending staff includes one surgeon, one internist, one eye, ear, nose and throat man, one roentgenologist and one laboratory man and assistant surgeon. One man is expected later to take on obstetrics as a specialty. Some of these men have taken postgraduate work abroad; others are to be sent away for postgraduate work later. ("You don't have to go out of the community for brains," is one of the working maxims of the institution, "and one of the functions of the rural hospital is to encourage and develop the younger men.") The financial arrangements under which the attending men work are, for the beginners, straight salary, and, for the others, allotted percentages of the pooled earnings. No one is allowed to collect an individual fee.

Complete Case Records Insisted On

Complete case records are insisted on for all work done in the hospital. These records, though less formal than those of many institutions which make a point of keeping good records, are very interesting, reflecting the spirit of a remark made to me by the director: "G— (one of his assistants) thinks about the pathology of the case; I think about what's going to happen to Bill Jones. Between us, Bill Jones gets a pretty square deal."

A country practitioner once told me that it was not worth while for him to keep case records because he had no interesting cases. From its records I infer that no uninteresting cases come to the Greater Community Hospital. Whether the physical ailment be severe or slight, common or rare, the human problem is always there and always interesting.

The laboratory work done in the hospital at present includes x-ray, gastric analyses, urinalyses, sections, and smears. The Widals and Wassermanns are sent away.

There is no dietitian at present on the staff, but dietetic work is regarded as of great importance and a dietitian is soon to be added to the force.

The superintendent of the hospital, a graduate nurse, is the head of the training school. The graduates are eligible for state registration. The capacity of the school is thirty; there are now twenty-six girls in training. A ten-hour day is

in force. The entrance requirement is high school education or its equivalent, but more stress is laid on personal than educational qualifications—that is, on common sense, initiative, and resourcefulness. The aim is to develop the type of nurse adapted to rural nursing—the kind who will go into a house full of trouble as well as sickness, and glory in meeting all difficulties single-handed. No student is considered fit to be graduated, I was told, who can't answer an impertinent question without giving either offense or information, who can't rig up a douche can out of something or other around the house, who can't give a gastric lavage, and who can't put a patient in the Fowler position in a rocking chair if the bed is unsuitable, as it generally is.

Has Attained Remarkable Results

I have described a hospital which is far from finished or perfect; anything which has attained perfection has no incentive or stimulus for further growth. There are in its method many loose joints on which an expert systematizer would pounce as flaws, but this is because, while an institution is growing and developing, the shaping of its ends is more important than the perfection of ways and means. The point is that, by one means or another, it has attained results which are somewhat remarkable among small rural hospitals. And yet, describing it merely as a hospital, I have scarcely described it at all, for the hospital proper has come to be merely one factor in the scheme of public health agencies for which the Greater Community Association is sooner or later to stand sponsor.

Will Sponsor Other Activities

These activities include, or are to include, a free tuberculosis dispensary, an examination station for children of pre-school age, and a school children's clinic and dispensary. A public health nurse has recently been placed in the field by the association, with the expectation that as time goes on her activities will be supplemented by those of a nurse for each of the six counties, whose work she will supervise and coordinate. The endowment funds which are sought are to be devoted to public health work rather than to free beds in the hospital.

Few, if any, hospitals, large or small, emphasize the public health idea as does this, or undertake the duty of instructing the public in health and hygiene. The walls are hung with pithy, original epigrams, original even in their unusual typography, charts, diagrams, and devices, forming a perpetual educational exhibit. Here are some samples:

"The principal business of each generation of men is the production and preparation of the next."

"A man Physically Unfit for Military service is not so *very* fit for a man's job of any kind."

How We Apply Money to Public Service

"Is it wise business management to expend public funds in purchase of equipment for protection of property against *Fire?* And still more perfectly good money to maintain *Service*—capable and ever ready—people who know how to fight fire—prevent it spreading to innocent by-standing buildings? And the night patrolman—and the inspector of buildings under construction? Of *Course* it is Good Business!

"Here in Fairhope we have $22,000 worth of property and apparatus that is dedicated to the protection of our houses and our goods against Fire. Maintenance of the service costs us annually—inc. hydrant rentals—about $10,000. *Notice* this *Fact!* The service is obtainable by any person who may need it—the fire companies work no less faithfully to save the home of a poor man than for rescue of the rich man's mansion.

"All of which is Good Business—and Right in Principle—which it must be to be good business.

"Another notable public service that involves expenditure of public money is our *Health Department.* The value of our equipment (municipal) devoted to defending our lives and health against preventable disease (since the 'pest house' burned) is—well, so far as we can learn, it is expressed in the value of our supply of quarantine cards printed in large type *Warning* persons to *Keep Out* (a most beneficent provision, is it not?) For services of health officer and incidentals we paid last year $369.

"Pretty Heavy, Isn't It?

"In this connection it is interesting to note a fact that in great measure mitigates the seeming prodigality of expenditures for protection of mere people against disease—the municipal Cemetery paid a profit of $309—so after all we are out only $60 on the a/c with human life and health conservation.

"For the year ending March 31, 1916, our municipal expenditures *per capita* for public service were:

Here is a brief study in spontaneously applied sociology contrasted with political technic in public service relating to protection of human interests.

Protection of *Property against Fire*	$1.25
Protection of People *against each Other* (Police Dept.)	.30
Protection against Getting *Lost* after *Dark* (Street Lighting service)	.52
Protection Expense Aggregate of Above	2.07

Two Dollars and Seven Cents per Person.

For protection of men, women and children against disease and untimely death *Four and One-half Cents per Capita.*

"Subtracting the profit paid by the Grave Yard this is reduced to *three-quarters of a cent per person.*

"Grafton, Corinna, Weldon, Anita, Hathaway, Hartfield, Milton, Fenwick and our neighbors in general have *no occasion to throw stones at our house*—they are no better."

What impression has the work of the hospital and the association made on the medical profession and the lay public? At the outset, it had to meet

bitter opposition from physicians and laymen, and some of this still persists, especially among the older members of the immediate community. The outside physicians, so far as I could see, look on the hospital with friendliness, with enmity, or with unwilling respect—but always merely as a hospital. One friendly cynic among the local medical men, after a warning against looking for unmixed philanthropic motives in the case, said:

"But make no mistake; no questions are ever asked there about whether a patient can pay or not. All that's saved the bloomin' thing from bankruptcy is the fact that most cases, as a matter of fact, are paid for.

"It has raised the standard of medical practice here; no doubt about that. It's the only real hospital in town, and perhaps we are more fortunate than we know to have it.

"Opposition is dying down, not because people have experienced a change of heart, but because any one who has something to offer that the public needs and the perseverance to keep on in spite of obstacles, is bound to win out in the end. In ten years' time, if S— lives, it will be a big thing."

Among the lay public, as one layman put it, there is no wave of enthusiasm, but a steady growth in understanding. So, after twenty-five years' struggle, the idea back of this work is just making itself felt in the community. Which, after all, is a sign of vitality, for any organism which has lived through twenty-five years of storm and stress and is only just beginning to develop, should be a long-lived plant.

Interest to Rural Hospital Field

Is there in this experiment anything of interest to the rural hospital field at large? A great deal, it seems to me, although it should be recognized that even yet many features in it are still in the probationary stage.

In the first place, it is a seriously considered attempt to grapple with the problem of competent medical service for the rural community. At present, the urban centers tend to attract a disproportionate number of medical graduates. Those who do settle in the country too often "slump" in their standards of practice, both because of lack of facilities and because of sheer stagnation in a community where medical men come into contact, not to exchange ideas, but merely to fight each other for patients. The Greater Community Hospital has been a factor in educating the thrifty farmer to pay his physician a living fee. It has provided the man who really wants to do good work with diagnostic facilities and opportunities for consultation. It has upheld standards of practice by excluding from these privileges the men whose work does not come up to standard. It has kept alive a vital interest in medical progress by acting as a center for the local medical organization. It has endeavored to afford postgraduate instruction by this means.

In the second place, I am inclined to believe that the theory of placing the rural hospital on a cost basis and endeavoring to throw the burden of charity cases back on the community, where it belongs, is a real contribution toward the successful solution of the problem. The expense of the care of charity patients cannot be extracted from the air; it must be drawn from the community. The hospital which permits itself to be regarded as a dispenser of charity is in a false position. It can give free care to destitute patients only in one or the other of two ways: either by loading the expense onto the overhead and making the paying patients defray it—which is an injustice to them—or by going out in the community and itself asking for alms. In the one case the hospital is regarded as an extortioner and profiteer; in the other it is considered an incompetent spendthrift, which has to be periodically rescued from bankruptcy by charitable friends. In both cases the public slides out from under the responsibility, and flatters itself that it is being generous when it pays the bills for its own repairs. When the hospital bills are placed squarely on a cost basis and the charges for a patient who cannot pay for himself referred back at once to the social group which ought to assume responsibility for him, there is no opportunity for the public to forget that it must pay its own bills in the end.

Vision of Comprehensive Scope

Thirdly, the Greater Community Hospital embodies (as yet, indeed, only partially) a vision of remarkable breadth and comprehensive scope with regard to the place of the rural hospital in the community. It views the local hospital, not as a distinct organism, but rather as an organ—a single unit in a closely related organic system. There is, outside of Fairhope, only one hospital in the outlying six counties, but the Greater Community Hospital would welcome and cooperate with others. They could not, indeed, serve as more than first-aid stations; the cases requiring extended study would, of necessity, be referred to the Greater Community Hospital, which, in its turn, does not hesitate to refer patients to the main centers of medical and surgical study and practice. If this procedure be followed, the smallest rural hospital becomes not a forlorn hope, but an integral part of a great hospital system, vitally connected with and drawing help, inspira-

tion, and stimulus from the great centers of research. Almost more important than this, the Greater Community idea recognizes the hospital as a subordinate part of the public health system. The hospital, realizing that much of the work which comes to it is for the correction of conditions which should never have been allowed to come into existence, looks forward to the time when most of this work shall have been eliminated —when surgery, for instance, will be practically confined to the repair of accidents and congenital defects.

In the training of nurses, moreover, the Greater Community Hospital attempts to adapt its work to the needs of its actual environment. The experience afforded by a forty-bed hospital is not, to be sure, as ample and diversified as might be desired. The quality of the instruction given in this small hospital is, however, exceptional in some respects.

As yet the success of the experiment depends more on the personality of the founder than on the mechanism he has devised to carry it on. Just how workable that mechanism will prove to be by any one other than the inventor can scarcely be foretold; the machinery is not even completed.

Other questions wait for time and experience to answer them. For instance, is it preferable to organize the public health activities of a community through private initiative and unofficial association, or through official means? Or does the answer depend on local conditions?

Whatever be the answer to these questions, the Greater Community experiment is one of great instructive value and interest, and the idea itself seems to possess the germ of vitality.

AIM OF NATIONAL THRIFT WEEK

The purpose of the National Thrift Week, which begins January 17, 1920, is to start the country off in the New Year with a sound financial program for every individual and household. The two ends sought are that the financial condition of the individual be improved, and that the financial strength of the nation be increased through the steady saving and safe investments of its citizens.

"The importance to the country of the practice of thrift and saving by the individual is not readily appreciable," said William Mather Lewis, director of the savings division, "until its results in the aggregate are summed up. While the country was buying twenty billion dollars worth of Liberty Bonds, it also put away more than a million dollars in War Savings Stamps, and savings bank deposits in this country also have increased some eight billion dollars during the years the world has been at war.

"The absorption of the Liberty Loans was due somewhat to extension of our national credit, but purchases of Savings Stamps and increases in bank deposits were almost wholly due to the wise preference of the individual for increasing his own and the country's capital account instead of using his funds in unnecessary spending.

"It is to bring to the attention of the country that it can, without sacrificing its pleasures or curtailing its comforts, add several billion dollars more to its capital account next year that plans for a National Thrift Week early in the year have been promulgated.

"Steady additions to the nation's capital are necessary if we are to take advantage of the trade and industrial opportunities that will keep us at our present full tide of prosperity. We must refrain from unnecessary and extravagant spending if we are to bring prices down. Having saved money, it is essential that the individual invest safely.

"To this end we urge continued investment in Government securities, on which steady and good interest returns are assured, with full return of principal."

The program for National Thrift Week will probably include National Thrift Day, Thrift Sunday, National Life Insurance Day, Own-Your-Own-Home Day, Make-a-Will Day, Thrift-in-Industry Day, Family Budget Day, and Pay-Your-Bills Day.

AMERICAN HOSPITAL IN LONDON

"In commemoration of the cooperation of the medical men of the United States and of Great Britain during the European War, and to strengthen the friendship existing between the two nations, the American Hospital for Great Britain be and is hereby founded for the medical and surgical treatment of patients of all classes, irrespective of creed or nationality, and for the promotion of scientific study and research."

The adoption of this formal resolution July 17, at a meeting of the Royal Society of Medicine in London, inaugurated a movement, the purpose of which is to make the institution—and London—a center for Americans—a place of refuge for Americans needing medical attention, and a rallying point for American physicians desiring post-graduate work, who have hitherto gone to Berlin or Vienna. Mr. Philip Franklin, an American who has for some time resided in England, a Fellow of the Royal College of Surgeons of England, and a member of the honorary staffs of many institutions, civil and military, has been the moving spirit.

With reference to the project the Lancet says:

"We have in these columns on many occasions alluded to the fact, not so difficult of explanation as it may appear, that the vast city of London has not hitherto been recognized as a center for post-graduate medical teaching by foreigners, while until recently what post-graduate teaching there has been has been individual, sporadic and ill-organized. Greater London, with a population of about seven millions and an area of seven hundred square miles, containing within its boundaries all sorts and conditions of men contracting, or liable to contract every pathological condition that can occur in an inclusive index of disease, has never been sought out by foreigners, and not even by our blood relatives who speak our tongue, the Americans, as a post-graduate center. The American Hospital is to prove itself a visible sign of a complete change in spirit."

Other post-graduate organizations have been inaugurated, one in connection with the fellowship of medicine, and others are expected to follow, but the American Hospital is expected to strengthen and cement the connecting link between the English speaking peoples of the two continents.

You can't educate a grasshopper. He's too busy hopping. The peculiarity of man is that sometimes you can induce him to stop and think.—*Atlantic Monthly.*

MANAGEMENT OF CONTAGIOUS DISEASE HOSPITALS

By D. L. RICHARDSON, M.D., Superintendent, Providence City Hospital, Providence, R.I.*

AT the Providence City Hospital, pamphlets giving the details of the technique employed by physicians, nurses, ambulance attendants are handed to each doctor and nurse and to the other

Patient signing document without infecting it. Towels are placed underneath it and over it, save for the place of signature.

employees who come in contact with the patient. This subject of technique was dealt with in the November and December issues of THE MODERN HOSPITAL, and is completed in this issue.

Physicians' Technique

Physicians' uniforms.—White uniforms are worn in the wards. Beneath the coat is worn a special, short sleeved, white vest or blouse, opening in the back. On going into the ward to make visits, the white coat is removed and left in the dressing room or the corridor. Visits to the patients' rooms may be made without putting on the gowns found in the respective rooms, unless it becomes necessary to examine a patient to the extent that some part of the clothing may come in contact with patient or bed.

Taking blood for examination.—All apparatus used is placed upon a clean towel on the bedside table. A clean towel is spread just below the ear from which blood is to be taken. The ear is then wiped off with alcohol, the puncture made, and the blood withdrawn or collected on slides. This is all done without infecting slides or instruments. The slides are sent to the laboratory for examination.

Taking blood for tests.—The following technique is used in taking blood for Wassermanns, Widals, and blood cultures. All apparatus used is placed upon a clean towel on the bedside table. The area over the median basilic or median cephalic vein is sterilized. A tourniquet is applied, the needle is inserted, and the required amount of blood is withdrawn into a sterile glass syringe. The nurse (uncontaminated) holds a sterile tube, to which the blood is transferred from the syringe. If a gown has been used it is removed and the hands scrubbed. It will be noted that the blood is now in an uninfected tube.

Nurse opening the clothes chute by using the forearm.

be noted that the blood is now in an uninfected tube.

Taking blood pressure.—All apparatus used is placed upon a clean towel on the bedside table. The patient is brought over to the side of the bed, and a clean sheet is thrown over the bed extending up and under the arm, while the arm is held up by the patient or an assistant. A clean towel is then wrapped about the arm and over it the cuff is applied, none of it being allowed to touch the arm. The apparatus may stand on the table or on the clean sheet that covers the bed. One hand (now contaminated) takes the pulse, while the other manipulates the bulb. When the readings have been made, the hands are washed, the cuff removed, and the apparatus taken from the room. It may be necessary for a nurse to put on a gown to control the patient or hold his arm.

* This is the fourth and last installment of the fifth article in a series on "The Care of Infectious Diseases in Hospitals." The first article, "The Care of Infectious Diseases in Hospitals," was published in the April (1919) number of THE MODERN HOSPITAL; "Medical Asepsis in French and English Hospitals," appeared in May; "Aseptic Nursing in American Hospitals," in July; "Construction of Isolation Hospitals," in August. The first installment of "Management of Contagious Disease Hospitals" was published in the September issue; the second installment in the November issue; the third installment in the December issue.

Laundry Technique

Handling infected clothing.—All clothing which falls into the clothes bags at the foot of the ward chutes, and all blankets, coats, and other clothing from the stable, are infected clothing. When collecting infected clothing, the laundryman wears a gown and washable cloth gloves. The two-wheeled truck on which the clothing is collected is kept in the laundry. He takes this down the elevator and through the tunnel to the basement of the ward and into the room where the infected clothing falls from the chute into a large canvas bag. He unhooks the bag from the frame and puts up an empty one. He puts the full bag on the truck and takes it to the laundry. He opens it before the washer and puts all the clothing into the washer, except colored clothes, which are thrown into barrels kept for the purpose. If the washer is loaded, he starts it and repeats his trip, returning the empty bag at once to the ward basement, until the bags have been collected from all the wards. Whenever pulling the elevator rope, opening a door, or starting the washer, the laundryman slips off a glove and uses his clean

Gowns are worn by nurses for any work which involves intimate contact with the patient. In the illustration the nurse is taking the gown from the hook, slipping it over her arms so that she is not contaminated.

hand. On returning after collecting all the clothing, he throws gloves and gown into the washer and scrubs his hands with brush, soap, and water. Infected coats and linen from the stable are brought to the laundry in a canvas bag, by the stableman, and are placed in a barrel plainly marked "infected."

Washing.—Washing is done in the manner usual in hospital laundries. The clothing must be in the washer for at least one hour, cold or hot water being run into the washers and heated to boiling by live steam. The clothing is next properly washed and rinsed. It is then sterile and can be removed to the extractors and thence to the ironing room. Woolen blankets and colored clothes are sterilized before they are washed.

Delivery.—The clothing is done up in square pieces of cotton cloth tied at the four corners, of sufficient size to make a bundle easy to handle. These are piled in a large basket on wheels, taken through the tunnel to the foot of the stairway leading to each ward, and the proper bundles are carried up and deposited in the linen room of each ward.

Porters' Technique

Changing beds.—In case a bed is to be substituted for a crib, or *vice versa,* the porter takes apart the bed or crib, which has previously been washed, and removes it to the storeroom. He then takes the other from storeroom to ward and sets it up. In case the change takes place in an infected room, he wears a gown and, after finishing, throws it down the laundry chute and washes his hands.

Removal of mattress and pillows.—The porter puts on a gown, goes to the ward, takes the mattresses and pillows in his arms or on his shoulder, carries them to the tunnel, and places them on a truck. When he leaves the ward with a load of infected mattresses, someone always opens and closes the door for him. The mattresses and pillows are taken out to the airing frames, or to the sterilizing room, where they are placed either in the sterilizer or on the platform reserved for

Infected clothing covered and waiting to be collected for sterilization.

infected articles, where they remain until sterilized. The porter returns his truck, throws his gown into the soiled linen, and washes his hands.

Delivery of mattresses and pillows.—Fresh mattresses and pillows are delivered by the porter from the storeroom to the patient's room, which has previously been cleaned. He does not have to wear a gown or wash his hands. If delivery is made to an infected room, he wears a gown and, after finishing, throws it down the laundry chute and washes his hands.

Sterilizing.—Articles to be sterilized are collected on Monday, Wednesday, and Friday by a porter and taken to the sterilizing room, where they are placed in the sterilizer or on the platform for infected articles. After sterilization, sterilized clothing is returned to the ward. Sterilization of mattresses, pillows, and other articles which are not damaged by steam is accomplished by steam under pressure of about ten pounds for about thirty minutes. Patients' clothing, books, and letters are sterilized by exposure in the sterilizer to formaldehyd gas for thirty minutes, there being from five to eight pounds of steam pressure in the jacket throughout that period.

Cleaning rooms.—Gowns are worn when cleaning patients' rooms. Between rooms the gown is changed and the hands are washed. Porters do not handle patients unless required to do so.

Transferring patients.—The porter or porters, wearing clean gowns, go to the patient's room and take him, wrapped in a blanket, either in their arms or on a stretcher, to the designated ward or room. If a stretcher is used, a clean blanket is first spread over the canvas so that only the handles are contaminated. The handles are afterwards washed with soap and water. The porters then throw their gowns down the laundry chute and wash their hands.

Removal of bodies.—If the body is that of a child, one porter is called to the ward. Wearing a gown, he carries the body in his arms, through the tunnels to the morgue. Doors are either opened or left open for him. If the body is that of an adult, two porters are required. After putting on gowns they carry a hand stretcher to the room and lay it on the bed; the body is placed on the stretcher and carried to the morgue, either by hand or on a truck. The porters then wash the handles of the stretcher, return it to the ward, throw their gowns down the laundry chute, and wash their hands.

Delivery of drugs.—Drugs are sent to the wards in bottles, paper boxes, and paper bags; they are carried to each ward in baskets.

Delivery of requisitions.—Supplies ordered on tri-weekly and monthly requisitions are delivered on a truck to the foot of the dumb-waiter of each ward, and the articles for that ward are sent up on the dumb-waiter. Articles too large for the dumb-waiter are taken up by hand.

Delivery of supplies.—Such articles as sugar, tea, coffee, and washing powder are placed in paper bags. Bread is delivered in loaves wrapped in waxed paper; milk is taken to the foot of the dumb-waiters in ten-quart cans from which as many pitchers as have been sent down from the diet kitchen are filled.

Delivery of cooked food.—Cooked food is sent to the wards in special, metal dishes which fit the steam tables in the diet kitchens, all the dishes being marked for their respective wards. These are delivered to the foot of the dumb-waiter by food-truck and sent to the ward on the dumb-waiter. The empty dishes are afterwards collected by a waiter, placed on a food-truck, and returned to the main kitchen. The food-truck is washed once a day.

Delivery of ice.—Ice is delivered to wards on a special truck. When the porter reaches the basement of each ward, he takes up a piece of ice for each refrigerator with ice tongs. He never goes into any room, except the kitchen, at such times.

Removal of waste.—Garbage and refuse are kept in galvanized cans with covers, cans and covers being marked for their respective wards. The porter collects these on a special truck. He goes up to each ward from the tunnel, leaving the door open, takes the cans down without closing the door, and places them on the truck. He wears a gown and washable gloves, one of which can be slipped off when he has to touch a door knob or other clean object. When he has collected a load, he takes it to the incinerator, empties the refuse cans, and proceeds to the garbage room where he empties the garbage into barrels. He then places all cans in a large iron tank where he washes them with hot water; the truck is also washed. The cans are then returned to the proper wards. In the last ward, the porter throws his gown and gloves down the laundry chute. He then puts away his truck and washes his hands.

Making repairs in wards.—Repairs in the wards are made by workmen from the engineer's department, without wearing gowns. They never handle the patients and always wash their hands on leaving the ward.

Maids' Technique

Entering and leaving ward.—On going into the ward, the maid puts on a gown. When leaving she removes the gown and scrubs her hands.

Duties of nurse maids.—The nurse maid helps in the care of convalescent patients, particularly in the large wards; she helps to dress and wash the children, serve meals, and sweep. She takes the children outdoors and does general ward work. She observes the same technique as nurses.

Duties of ward maids.—The ward maid washes dishes, cares for the diet kitchen and all toilet and bathrooms, mops and polishes all floors, and sweeps the corridor and utility rooms (but not the rooms occupied by the patients, which are cared for by the nurses). She first does her work in the uninfected area and then proceeds to an infected area. When she has finished in the infected area, she puts the gown down the laundry chute, scrubs her hands, and puts on a clean gown.

THE DEVELOPMENT OF HOSPITAL ORGANIZATION IN CANADA

By MALCOLM T. MacEACHERN, M.D., Superintendent, Vancouver General Hospital; President, British Columbia Hospital Association

SUGGESTED IMPROVEMENTS

A reorganization of former policies is taking place in the hospitals of Canada. The doctrine of hospital standardization is being seriously taken up, and will doubtless result in the development of a highly improved hospital system in Canada. The immediate need of stronger organization is apparent. This may be accomplished by establishing an active hospital association in each province, and by building up a strong national association in Canada, similar to the American Hospital Association. A close survey of Canada should be made to serve as a guide for future hospital extension.

HAVING had the privilege recently of coming in touch with the hospitals of some of the large cities in Canada, I was impressed with their activity in the reorganization and reconstruction of former policies. The doctrine of hospital standardization, which is being taken very seriously, will undoubtedly result in the building up of a fine type of Canadian hospital system in the near future. If we could see into the future, we would probably be amazed at the great changes. The work of hospital standardization obligates us to the highest type of efficiency possible in our institutions, and must be carried on as an international, national, and local problem.

Although hospital organization has progressed splendidly in Canada, there is still much to be accomplished. The Dominion of Canada is fortunately very well adapted for hospital organization. We find a number of provinces from coast to coast each having a large hospital center in addition to scores of smaller hospitals endeavoring to fulfill the worthy objects for which they were organized. Many of these smaller hospitals are living a struggling life, suffering from the disadvantages of inconvenient planning and inadequate equipment. Nearly all of them are suffering from lack of finances. In addition, there is lack of team work.

The only province in the Dominion which has a live, active hospital association is that of British Columbia. During the past year this association has established and maintained good hospital team work. The objects of the association are as follows: (1) to serve as a means of intercommunication and cooperation between the hospitals in British Columbia; (2) to establish, maintain, and improve standards of hospital work; (3) to promote the efficiency of all hospitals in the province; (4) to stimulate intensive and extensive hospital development; (5) to make all hospitals of more community service.

The association holds an annual convention and publishes a record of proceedings, the report of this year comprising approximately two hundred pages of very readable matter. All objectives laid down by the constitution have been lived up to—particularly that one which calls for the promoting of a better feeling between hospitals by cooperation and team work. In the province of British Columbia our institutions are working hand in hand, Protestant and Catholic, public and private. A similar association has just been formed in the Province of Alberta.

It is my desire that we in Canada should accomplish something real and lasting in hospital development, and I would urge that similar associations be formed in all provinces. If the Canadian Hospital Association is still in existence it is very reticent, as we never hear from it. I have been told that it was not deemed advisable to hold its meetings during the war, but it seems to me

that at that time its assistance was most needed to meet the many emergent problems which were placed upon us as hospital workers, let alone coping with epidemics or other national calamities. National associations along other lines have flourished during the war, as is evidenced by the work accomplished by the Canadian Nurses' National Association during the past few years. If our provinces of Canada cannot develop energetic local associations and a strong national association, there must be something wrong.

I believe that a strong national hospital system can be built up which will in no way conflict with the international, or American Hospital Association. It is all very well to attend a large meeting of the American Hospital Association and hear the latest and best on everything, and it is very necessary that every hospital on this continent should be represented at such a meeting each year; but it is just as necessary for us to have the national and local hospital associations in order that these advances may be carried out in a practical way. I would therefore like to see a National Hospital Association for Canada, active in every phase of the work, cooperating with the American Hospital Association and having a thoroughly representative executive body. This body might consist of one member from each local provincial hospital association, which might be either president or secretary, similar to our National Health Council of Canada. There is a big field of work which yet remains unexplored —large territories with no hospitals, and others, as already mentioned, with inadequate institutions which require the assistance to be gained through such an organization.

Having come in close contact with hospital work in many of the western cities, I find that they are ready to do a great deal in order to put this work on an efficient basis. In the City to Calgary there are two splendid hospitals, the Calgary General and the Holy Cross. Both institutions are actively endeavoring to carry out the requirements of hospital standardization. The Calgary General Hospital has become a municipal institution, as will, I understand, all the hospitals in Alberta. A large number of institutions will probably be established throughout the Province in the near future. It is very essential that data of a practical nature be assembled as a guide in this hospital extension work, so that the errors of the past in planning, architecture, and equipment may be eliminated, and a good, sound, scientific, and practical hospital system be available. Indeed, this may apply to the whole of Canada, as there is a large variety of institutions, and also a difference in the nature of the community in which they are established. Every effort is being made to carry out at least the minimum requirements of hospital standardization in organization, laboratories, and case records. Possibly one of the most interesting points in this connection can be illustrated by mentioning the two weekly luncheons given in the Winnipeg General Hospital to the staff. These luncheons take place from 12:30 to 2:00 o'clock during which time the members of the staff meet and discuss the work of the hospital, giving a review of what has taken place since the last meeting and showing interesting clinical cases. This plan, as inaugurated and carried out by the Winnipeg General Hospital, is worthy of adoption throughout all our institutions. It has been found that a larger attendance is assured at the noon hour than at night or at any other time.

During the war a large number of the hospitals in Canada cut down their administration forces so much that they now find themselves in a keenly felt state of disorganization, owing to the increased work thrown on every institution. The question of a definite internal organization is being thought of seriously in all our larger hospitals. Possibly one of the greatest difficulties is the establishment and maintaining of a good, case-record system so that an accurate record can be kept of all the patients. A good, case-record system also assists the clinicians and the boards of directors in estimating the quality of work done in the hospital and the results obtained. All our larger institutions will undoubtedly soon create a department of records with a capable director in charge, and with standardized case-record forms in use. Although difficulties may arise in maintaining a complete record system organization, as work and some expense will be involved, it will be one of the best investments that has ever been made.

In conclusion, I would like to sum up the suggestions intended to make our system measure up to the 100 per cent efficiency we desire:

(1) That an active national hospital association be established in Canada with representation in each province;

(2) That each province form its own local hospital association;

(3) That each institution reconstruct its organization to a more efficient working basis;

(4) That a very close survey of Canada be made to secure data necessary for the guidance of future hospital extension and development;

(5) That the principles of hospital standardization be seriously taken up and put into effect;

(6) That team work between the hospitals of different provinces as well as within each province be developed.

FROM OUR FIELD EDITORS' NOTEBOOKS

THE OCCUPATIONAL DEPARTMENT AND SCHOOL OF NURSING, PRESBYTERIAN HOSPITAL, CHICAGO

No matter how often one visits the Presbyterian Hospital, there is always something worth while to be seen which one has not seen before, and it is always shown with a cordiality which makes the visit one of pleasure as well as profit.

The new thing in the occupational department this time was a record card for the patients' work which Miss Winifred Brainerd, the head of the department, is going to describe in a later issue of THE MODERN HOSPITAL.

As the average stay of patients in the Presbyterian Hospital is only eleven days, the work of the occupational department is almost entirely therapeutic as distinguished from vocational or diversional. Yet one man obtained a position with a wicker furniture maker on the strength of samples of work which he had made in the hospital.

Basket work, by the way, is overwhelmingly popular, this kind of handiwork being preferred by the majority of patients to every other form of occupation offered for their instruction and benefit.

The size of the occupational staff does not permit the undertaking of work in the wards except on orders from the physicians in charge of the case.

A great deal of work is done with patients in the neurological department. One of the physicians in this department says that many of his patients are cured in the occupational department.

This little girl was sent from an orphans' home to the Presbyterian Hospital for treatment. During a rather extended stay she learned to make baskets. Now, after returning to the orphans' home, she writes to Miss Brainerd: "Our superintendent is going to get some reed so I can teach the girls here how to make baskets. I will be glad to do it, because that's just what I am going to do when I get older."

A great many diabetics also draw substantial benefit from occupational therapy. The men who treat diabetics have made occupation a matter of routine treatment for this class of patients.

Whenever a new patient comes in they write at the bottom of the order sheet, "Notify occupation."

In the school of nursing the newest thing is a class in choral singing, from which it is hoped that the girls will derive not only pleasure but also benefit, since a pleasant voice is always one of a nurse's most valuable assets.

I was interested in learning also of a class in calisthenics devoted to exercises in deep breathing and for strength the back and the foot. The fact that the proportion of foot troubles is very small in the Presbyterian Hospital school of nursing—last year only two out of a class of something like two hundred and fifty—is attributed largely to the attention given to strengthening the feet.

If the number of nurses seems large even for a hospital of 463 beds, it must be remembered that Presbyterian Hospital operates on an eight-hour schedule for nurses; also that the number of affiliations and opportunities for special work reduces the number of nurses available for regular duty at any given time. Presbyterian Hospital prides itself on giving its nurses not merely training but a really liberal education. Perhaps for this reason, it never has any lack of applicants of high grades; perhaps also one reason is the pleasant home atmosphere and the fine human attitude toward patients and toward life which Miss McMillan and her capable and willing assistants seem able to instill into them.

At any rate, I am told that each season's applicants include a large proportion of sisters, cousins, and friends of former graduates.

The social life of the young women in training is made just as normal and homelike as possible. They may receive their friends at the nurses' home.

One of the attractive features of the Sprague Home for Nurses, by the way, is the roof garden, on which is a little enclosed sun room, furnished and equipped with tea things, where the girls may give little informal parties to women friends, or may make themselves at home whenever they feel like it.

MOUNT VERNON HOSPITAL, N. Y.

Mount Vernon Hospital is the only hospital in Mount Vernon, a suburb with about 40,000 inhabitants, a few miles outside of New York City. For an institution of only 100 beds—102 to be exact—it has some rather unusual and interesting features, one of which is a very active out-patient department. There are eleven clinics, including surgical, medical, nose and throat, children's diseases, dental, tuberculosis, pediatrics (feeding cases), skin, prenatal, eye, and venereal.

How readily do the poor take to the benefits, for instance, of the prenatal clinic? I asked, and was told that they are very appreciative. In many cases the knowledge that friendly help is obtainable throughout the period before the baby's birth, may change its expected advent in a poor family from tragedy to rejoicing. Following is a copy of the card which the hospital issues for dis-

The sun room on the roof of the Sprague Home for Nurses is one of the many provisions for a pleasant normal home life for the young women in training at the Presbyterian Hospital.

tribution among those who may need the services of the prenatal clinic.

"MATERNITY CLINIC

"Since December 4, 1918, a Prenatal Clinic has been held in the dispensary of the Mount Vernon Hospital on the First and Third Thursday of each month, from 2 to 3 p. m.

"Prospective mothers who wish to be confined in the public wards of the Hospital, are urged to register early to avail themselves of the opportunity for early care and advice during the childbearing period. By so doing, they will save themselves much of the danger coincident with childbirth."

The Mount Vernon Hospital is one of the ten hospitals out of thirty-seven in New York State inspected by the American College of Surgeons which met the requirements of the standardization committee.

CENTRAL CLUB FOR NURSES

The beautiful home of the Central Club for Nurses, New York City, is the outcome of a dream which at first threatened to be a nightmare. In 1910 the club opened on Thirty-fourth street in a club house improvised out of two converted dwelling houses. A better home was desired but scarcely hoped for. In 1913, when the Young Men's Christian Association and Young Women's Christian Association opened a joint drive for funds, the latter organization offered, in return for support by the training schools, to devote a certain part of the funds obtained to the erection of a nurses' club house. There was much objection from within the ranks of the nursing profession.

The main building of Mount Vernon Hospital. At one end it is expected to build a solarium as a memorial to Dr. Elizabeth C. Sleight, a much-beloved physician of the community, who gave up her life in caring for others.

It was prophesied that so many women would never choose to live under one roof; that the club could never be made self-supporting; that it would be tainted with charity, and therefore objectionable to the self-sustaining and self-respecting professional women.

The drive, however, was carried to a successful completion, and $400,000 of the $4,000,000 obtained was devoted to the erection of the club house at 132 East Forty-fifth street, shown in the illustrations on the succeeding page. The building, which was opened July 1, 1916, contains rooms for 250 resident members, who must be actively en-

The ambulance bought for the hospital by the city of Mount Vernon. Although the hospital is under the control of a private board, its relations with the municipality are very close.

gaged in their profession; they enjoy all the privacy and independence and much of the service that they would have in a good hotel, while at the same time they have a home-like, congenial atmosphere. Other privileges are at the service of resident and non-resident members. Among these are private and public dining-rooms, cafeteria, tea

The nurses' home of Mount Vernon Hospital.

rooms, library, committee and reception rooms. A spacious and attractively furnished assembly room is at the service of outside groups, such as training schools, for social gatherings on payment of a small fee to cover expenses. There is a charming little rest room, with dressing rooms opening off from it, where an out-of-town member, coming into town to attend a dinner or the theater, may slip into a kimona and rest for a while on the couch before making her toilet for the evening. Non-resident members have the privilege of twenty-eight days' stay at the club as transient guests.

Any graduate of a recognized training school for nurses with a course not less than two years, if her application is properly endorsed, may become a member of the club on payment of one dollar initiation fee and one dollar yearly dues. The charge for rooms is, to residents, $15.50 to $19 a month for single bedrooms, and $13 and $14 a month to each occupant of a double room. These charges are to be increased by a dollar a month next year. Transients pay $1 a day or $7 a week.

It seems almost incredible that such accomodations can be offered in a central location in New York City at such a price on a self-sustaining basis. Yet the income of the club has been sufficient not only to meet all current expenses but also to provide for a small depreciation fund. This, however, is possible only because the club has no

The Central Club for Nurses at 132 East Forty-fifth Street, New York City.

rent or taxes to pay. The ownership of the building is vested in the Young Women's Christian Association, and it is therefore not subject to taxation. The club pays to the association four per cent of its gross receipts, but this is much less than rent would be.

The membership of the club has increased nearly 300 per cent in three years. In 1916 there were 500 members; now there are 1,900, and nearly every state in the Union is represented. During the war, the club kept open house for all nurses passing through New York on their way to embark for duty on the other side, and many a one of these nurses, on her return, has shown her gratitude and her desire to be connected with the organization that had stood as a "big sister" to her during the past season of tribulation. The club is managed by a committee of thirty women, of whom fifteen are professional and fifteen non-professional. The non-professional members are selected by the Young Women's Christian Association. Each of the large New York hospitals is represented among the professional members.

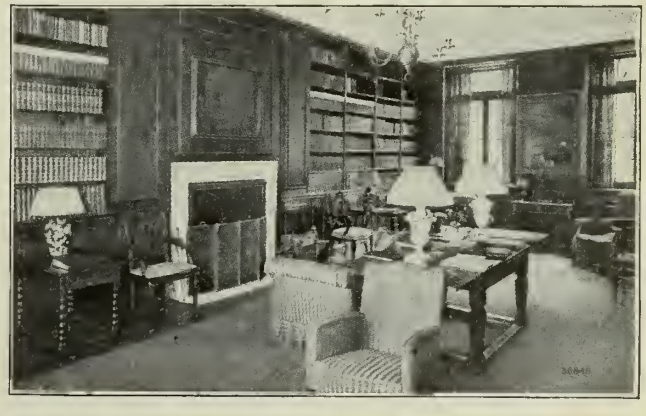
The main dining room of the Central Club for Nurses.

The New York State Board of Nurse Examiners and the central registry of the New York County Registered Nurses' Association have their offices in the building.

Nothing approaching the home has ever been given to the nursing profession. It has been an almost priceless boon to many nurses who without it would be compelled to live in dreary, uncongenial, uncomfortable surroundings. "The club seems too good to be true," is the verdict of one and another who have experienced the hardships of life in other surroundings. To its non-resident members it is, at need, a "haven of rest." The club has furnished a model, also, for similar undertakings in other communities.

The spirit in which the gift was made is expressed in the words of Mrs. Nathaniel Bodwitch Potter, read at the laying of the cornerstone, November 17, 1915:

"To the nursing profession, each member of the community owes, sooner or later, a debt of gratitude which it can ill afford to neglect, yet which it can with difficulty repay. As a token of its appreciation and faith, the public offers to the nurses of New York City this building, with the affection of many friends, and in the hope that within its walls they may never fail to find the physical rest, mental refreshment, and spiritual renewal so necessary to the members of that great profession who give themselves unsparingly, and, when the call comes, recklessly, to those who suffer and who die."



The library of the Central Club for Nurses, which was given as a memorial by the members of the Sunday School class of Mrs. Janet McCook Whitman.

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CANADA ALIVE TO ITS NEED OF HOSPITAL ORGANIZATION

ALL who read Doctor MacEachern's article on the development of hospital organization in Canada will be impressed by the fact that all of Canada, but particularly the western section, is alive to the urgent need for a better and a more thoroughgoing organization of the field of hospital service, in order to guide aright the inevitable, rapid expansion of the near future and to assist the smaller institutions in planning, in organization, and in maintenance on a high plane of efficiency.

Although the Canadian Hospital Association has been in existence for some years, it was, strangely enough, more or less dormant during the war when, because of the urgent problems needing solution, one would have expected it to be most active. There is, however, a place for such an association and we have reason to believe it will shortly resume its activities and play an important part in the development of the hospitals of Canada. In the meantime, the provinces have not stood idly by. Just as a number of the states have in recent years organized state hospital associations, so some of the Canadian provinces have organized provincial hospital associations. Over a year ago the British Columbia Hospital Association was organized, last October the Alberta Hospital Association was formed, and other provinces are on the verge of taking a similar step. Ultimately it is hoped that all the provinces will have their local hospital associations. Doctor MacEachern and other leaders in the Canadian Hospital field are actively working to this end. When all of the provinces have hospital associations, it is hoped that representatives from each will go to make up a strong representative executive committee of the National Association.

As Doctor MacEachern points out, big pieces of work lie ahead of both the national association and the various provincial associations. Although some parts of the United States are sadly underhospitalized, they are not as badly off as some parts of Canada where large territories exist with no hospitals whatsoever and others with sadly inadequate facilities. Communities need to be awakened to the need of hospitals, and communities contemplating construction need information and advice lest they build unwisely. There are problems of reorganization not only of the individual hospitals but of groups of hospitals. There are problems of remodeling, of finance, and of personnel. In all of this work, the national and provincial associations, through the organization of appropriate service bureaus, can be of inestimable help to the individual hospitals, particularly the smaller institutions.

All of this work, however, needs to be done in an orderly, scientific manner. We are especially glad, therefore, to find among Doctor MacEachern's recommendations for the improvement of Canada's hospital system one calling for a close survey of Canada to secure data necessary for the guidance of future hospital extension and development. Without such a survey, Canada will not know its problem and will go on as it has in the past and as other countries have, planting a hospital here and a hospital there, without any regard to the establishment of a suitable ratio of beds to population and without giving adequate consideration to the maintenance of hospitals once established.

The Canadian Hospital Association might well set for itself as one of its first big tasks a survey of the hospital situation of the whole of Canada along fairly broad lines. Such a survey will yield a mass of invaluable data including, among other information, the number of hospitals in Canada, their kind, their distribution, their size, their services, and the ratio of beds to population. With this information in hand, the provincial associations could carry the survey into greater detail. In this way a body of information could be built up that would be of untold value to Canada

as the basis for the development of its hospital scheme on a national scale. This information would make for an orderly, symmetrical development, enabling those interested to see in what parts of Canada the ratio of hospital beds to population is low, and consequently where the emphases need to be placed. Because of its smaller population and fewer hospitals, such a task could be undertaken by Canada with a greater assurance of success than by the United States.

THE MODERN HOSPITAL congratulates Canada upon the splendid showing it has made in recent years along the lines of reorganization and standardization and confidently looks forward to the establishment in the near future of some such system of national and provincial associations as Doctor MacEachern has outlined in his article.

LEARNING TO SAY "NO" WHEN NECESSITY DEMANDS

EXECUTIVE work is usually thankless in spite of good results. In fact, the results are often the only satisfactory part of the job. And the lot of the hospital superintendent is no different in this respect than that of any other executive. The present fashion is for everybody to want something and for somebody to want everything, and in the hospital the demands focus squarely on the superintendent. It is he who must finally say "Yes" or "No."

Now it is not pleasant nor easy nor satisfying to say "No." But some one has to say it. Yes, if the guardianship of what has been built up, what has been established as worth while, what should endure, is to be fulfilled, the hospital superintendent of the present will need his footing, his clear head, and his square jaw.

In general, the developments of social welfare, of increase in efficiency, of better service for everyone are all right, and let us not find fault with them. At the same time, let us all bear in mind that some one has to pay for all these things; there are none of them quite free; and that where the hospital is concerned, it is the superintendent who must see the way clear for payment. For this reason the superintendent will have to resist demands, urgent demands, from every angle.

It will do us all good to remember that there is such a word as "No," that there is necessity at times for its use, whether by us or to us. What the country needs is for more people to use the word and to mean it. Let us try to learn as individuals, as well as a nation, to say "No" when the occasion demands, and to mean it. We should learn on occasion to say it to ourselves. Let us, however, use judgment, not simply rule or formula, in saying the word. And, finally, let us learn to *hear* "No" and to heed it when it is said with authority.

EDUCATING HIS BOARD—THE SUPERINTENDENT'S TASK

WE have often wondered whether the superintendent who complains that he lacks the intelligent backing of his board of trustees is not often himself to blame for this lamentable condition.

If only one or two trustees take a deep interest in the hospital, is it not partly due to the fact that the superintendent has not taken the trouble to educate all the members of the board regarding the hospital and its activities? Rare indeed is the man who is thoroughly familiar with a hospital's activities and its multifarious problems at the time he first becomes a member of a hospital board. Usually his name is suggested, not because he has been a successful trustee of some other institution and is fully conversant with hospital work and his duties as a trustee, but because he is a man of means or influence in the community, or, perhaps, for no better reason than that he is an intimate friend of the trustee proposing his name. Like everyone else, therefore, who has little or no knowledge of hospitals, this tyro of a trustee needs to be educated about the institution. And who is there better qualified to do it than the superintendent himself?

In the terminology of the advertiser, the superintendent must sell the hospital to his trustees. To this end, he should lay before them in personal conference, through informal letters, and by periodical reports, the hospital's main lines of work, its aims, and the obstacles it finds in its efforts to realize them.

Interest is not self-generated; it is inspired by knowledge. Only as the superintendent puts his trustees in possession of facts about the institution will their interest be aroused and sustained. Opportunities for this? They will frequently present themselves. It only remains for the alert superintendent to grasp them.

If the superintendent does not educate his trustees who, we ask, may be expected to do it? Assuredly some one must if the board is not to be burdened with the dead timber of "dummies." Older trustees may be expected to cover some aspects of the educational process. But the superintendent, by virtue of his position and the time he devotes to his task, is far more conversant with the work of the hospital than any trustee, however devoted, can ever hope to be, and is preëminently fitted to educate him.

We firmly believe that the depth of the trustee's

interest may, in no mean degree, be measured by the lengths to which the superintendent goes in giving him the broad, essential facts of the institution of which he is the executive head.

THE TONIC EFFECT OF A SMILE

THERE is a milliner with a little shop in New York, who sells more hats than some of the department stores. When asked for the reason of her success she said: "We do two things—first, we treat our customers as friends. We *like* them. Second, when we try hats on our friends, we smile and make them *like* us and the hats."

Here is sound sense. The customers are not "cases." The milliner for good business reasons knows why.

Do we have in hospitals two many "cases," rather than friends whom we *like* and who *like* us? Do we appreciate the tonic effect of reaction to cheerfulness, to laughter, to charm of personality? There is an idea among the younger nurses and doctors that to be quite impersonal and solemn is to be professional. Is not this seriously impersonal attitude being overdone? Of course the hospital is not a place for levity or effusiveness. On the other hand, above all places else, cheerfulness, laughter, and the charm of personality are at high value in a hospital. From time to time THE MODERN HOSPITAL has emphasized this idea, and now that New Year's resolutions occur to us again, can we do better than to resolve to maintain throughout the 366 days of 1920 a cheerful, genial disposition, since it enables us to work with ease and efficiency, radiates a spirit of sunshine and of grace that is born only of gladness, and helps our patients on the road to health?

THE SELF-CENTERED HOSPITAL A THING OF THE PAST

THE war, perhaps more than any other factor in recent years, has awakened the American people to the need and desirability of good health as a national asset, and on every hand new agencies and institutions are being called into being to attain this end. Not only are additional hospitals being built in increasing numbers—not a few of them as war memorials—but other instruments are being welded for the accomplishment of this gigantic task of putting our nation on a 100 per cent health basis. Community welfare associations are being formed with the promotion of health as one of their primary aims. Associated charities and social service organizations in increasing numbers are employing medical advisers. State health departments, state tuberculosis associations and, on a national scale, the American Red Cross, are actively promoting the establishment of health centers.

In the midst of these agencies, the hospital can no longer stand as a self-centered institution, living wholly unto itself. They are bound to make increasing demands upon the hospital in many ways—demands not only for the technical service which the hospital has to offer in medical and surgical skill and medical social service, but also for advice and information and, not infrequently, for leadership.

Far from repelling these opportunities for service, the superintendent, busy though he may be with affairs directly related to his own institution, should welcome them and do all in his power to further every legitimate and well thought out plan for ameliorating the ravages of diseases and promoting the health of the community.

Incidentally, we believe this is one of the best ways for a superintendent to broaden his outlook and interest and to overcome the bane of institutionalism. Participation in these outside activities, moreover, is bound to be reflected in better work within the institution.

SMALL HOSPITALS LOSE STIMULUS OF STATE CONFERENCE

THE Bureau of Hospitals of the Ohio State Department of Health, which has lately been engaged in making a survey of the hospital and dispensary facilities of the state, is showing a commendable spirit of cooperation with the various institutions, which cannot help but react favorably on its work and have a marked tendency to make the hospitals and dispensaries the more willing to comply with its requests and act upon its suggestions. As indicated on page 45, the Ohio Health Department, acting through its Hospital Bureau, recently invited thirty representatives of various kinds and sizes of hospitals in the state to meet with it for the discussion of some of the problems to which Ohio's advanced hospital legislation has given rise. The response to the invitation was good—twenty accepted. But few of these, however, were from the smaller institutions, although unusual efforts were put forth to get them to come to the conference. This was a disappointment to the state officials and to all in Ohio who are interested in the improvement of hospital service in the smaller towns and the open country, for without doubt the smaller institutions have most to gain from conferences of this character. Among other things, such con-

ferences help them to step beyond their necessarily narrow interests, and give them a newer and a larger vision of their own work and of their place in the greater whole. Whatever the reason for this small attendance of representatives from the smaller institutions, whether the cost of travel, indifference, or pressure of work, they may well raise the question whether in their own interest (which in the last analysis is the interest of the community they seek to serve), they can afford to deny themselves the opportunity of attendance upon a state wide conference such as the one in question, and of meeting in conference the representatives of a state department which, in carrying out the mandate of the law, is seeking to do so in a splendidly cooperative spirit.

GETTING THE PUBLIC BACK OF THE HOSPITAL

LIKE every other institution intended for the benefit of the public, the hospital needs not only the confidence and support of its community but also its interest and intelligent cooperation. That hospital which is not understood by the public—which is perhaps forgotten and ignored except when some unfortunate occurrence furnishes material for a sensational paragraph in the newspapers—that hospital is a hopeless failure—and it deserves to fail.

Now, almost every hospital possesses in its organization a body of men or women, or both, who should be its interpreters to the public—in the best sense, its advertisers and publicity agents. These are the members of its board of trustees. It is the duty of the trustees, we have said, not to assume but to *know* that the hospital buildings are safe, that the patients are being properly cared for, and that the responsible officials are capable of meeting their responsibilities. The second duty of trustees, after knowing that the hospital is fulfilling its obligations towards the public, is to see that the public knows and appreciates the fact. To succeed, the hospital must be understood and appreciated by its community. If the trustees have intelligently and conscientiously discharged their duty of understanding the hospital's activities, no one should be as well fitted as they to make the public understand them. On the other hand, if the trustees are uninterested in the hospital's work, how can it be expected that the general public will have faith in that work? This is one of the reasons why no hospital should tolerate "dummy trustees" on the board.

DOCTOR CARREL RETURNS TO AMERICA

(Photo by Underwood & Underwood, N. Y.)
Dr. ALEXIS CARREL.

DR. Alexis Carrel has returned to this country after more than four years of strenuous war time activity abroad. There is deep regret in the medical fraternity of France that he prefers America to France for the continuation of his research work. The French consider him the successor to Pasteur. Dr. Carrel was born in Sainte Foy les Lyon, France, in 1873. He attained the degree of Bachelor of Letters at the University of Lyon, France, in 1890; that of Bachelor of Science in 1891; Doctor of Medicine in 1900. He came to America in 1905, and became a member of the Rockefeller Institute of Medical Research in 1909. In 1913 Columbia University granted him the degree of Doctor of Science. He was the winner of the Nobel prize in 1912 for success in suturing blood vessels and transplanting human organs. He is a Fellow of the American Surgical Association, the American Philosophical Society, member of the American Society of Physiology, and associate member of the American Medical Association.

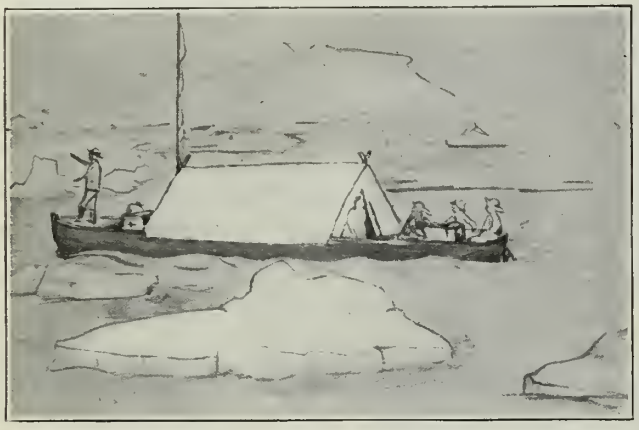
INAUGURATION OF NEW DEPARTMENT POSTPONED

WE regret to announce that, owing to a recent illness of Mr. Asa S. Bacon, superintendent of the Presbyterian Hospital of Chicago, the inauguration of the new department of "Progress in Equipment and Operation," must be postponed until a later issue.

HOW PETER WENT TO THE HOSPITAL

A trip to a hospital in any country and under the most favorable conditions never bears even the remotest resemblance to a joy ride, but this is what it is like in Newfoundland.

There had been so much sickness at Conche that Miss Jardine, a member of the winter staff of St. Anthony's



The ambulance in which Miss Jardine's patients started to the hospital. From a drawing by Dr. Grenfell.

Hospital, had been sent there to serve as visiting nurse. On Easter Monday, Peter the fisherman received a severe knife wound in the abdomen while working in the hayloft. When Miss Jardine arrived, he was unconscious from loss of blood. The nurse gave first aid using a hot salt solution and boiled table napkins nothing else sterile being available. The bleeding was internal and, having a few clamps, scissors, and some catgut with her, Miss Jardine, assisted by the priest who was administering the last rites, performed an emergency operation. Complications arose, the wound having been inflicted by a dirty seal or "sevoile" knife. But the patient lived.

After three weeks, Dr. Grenfell who was making the rounds reached Conche, and decided that it was safe to move Peter to the hospital.

The start was made on a beautiful Sunday morning in a large trap-boat fitted out with a tent overhead, and stoves and comforts for the patients, for Peter had company—a young girl, mentally deranged. The day passed pleasantly, but late in the afternoon the ice began to jam. The way was finally blocked, and the party was compelled to turn back to the nearest harbor and disembark.

There, an uncomfortable delay ensued. Dogs were scarce. So was snow. Two fairly good teams were finally secured, however, and the start for St. Anthony, seven miles distant, was made. It was a hard pull for the dogs —and the patients too. There were many bumps, as Peter could testify. The trip didn't do him any good, but under the care he received at the hospital he soon overcame its effects, and after that his improvement was rapid.

TO DIRECT RED CROSS HEALTH SERVICE

Dr. E. A. Peterson of Cleveland, Ohio, has been appointed director of the Health Service Department recently created by the American Red Cross to administer its peace time activities in the health field. Doctor Peterson has had many years experience in social work and education and as an executive in health work. He served during 1918-1919 as Major with the American Red Cross Commission on Tuberculosis to Italy, and had charge of the Department of School Hygiene. For the previous eight years he had been the director of the Department of School health in Cleveland, Ohio. Doctor Peterson has taken up the work and is located at National Headquarters, American Red Cross, Washington, D. C.

RED CROSS TO AID IN FORMING PUBLIC HEALTH CENTERS

Since public health activities are to be the central feature of the peace-time program of the American Red Cross, a general statement of its public health plans is made in a pamphlet just issued, entitled "Health Centers: A Field for Red Cross Activity." A large part of the work of the Red Cross, both at home and abroad, during the war was concerned fundamentally with health problems, so that an extension of its endeavors in the field of public health is a consistent evolution in policy rather than a radical departure.

The Red Cross will not encroach upon the field of health authorities, but will enlist alongside these agencies in an effort to eliminate the unnecessary poverty, sickness, and death now caused by preventable diseases. The Red Cross is particularly well qualified to assist in health education—a large factor in the public health campaign. The Red Cross plans to offer its services to assist in the establishment of health centers wherever they are needed.

The first step in the Red Cross health program was the extension of the public health nursing service as now organized under the Department of Nursing. The second step will be the establishing of health centers which will serve as headquarters for the public health work of the community. The pamphlet stresses the demand for team play in public health work. The health center differs from the dispensary or clinic in that it emphasizes the preventive rather than the curative aspect of health work.

It serves as a clearing house for public health information and offers opportunity to coordinate all the public and private activities of the community. If the health center in a small community begins only as a bureau of information, it performs a useful task. The Red Cross can make no better beginning in its health work than by providing a headquarters known to the whole community as the place where information may be had promptly, as to the medical, nursing, and hospital facilities available in an emergency. A special Red Cross manual, which will be an invaluable guide to Red Cross nurses, home service workers, and volunteers in establishing this kind of service, is now in preparation.

The two fundamental activities in the modern public health campaign are the war on tuberculosis and the conservation of child life, and the health center will include clinics for these. There will also be clinics for venereal and mental diseases. The advantages of placing the mental hygiene clinic in the health center are obvious. This course will contribute to the modern effort to humanize the state hospital and to teach the public that the various forms of mental defect and disease should be looked upon rationally as other diseases, which are often responsive to treatment, are regarded.

Other activities which may be usefully located in health centers are dental clinics, and after-care work growing out of epidemics, such as influenza. In the convalescent care of hospital patients in general there is a great opportunity for service from the health center. It may be convenient for the local hospital to establish much of its out-patient work at the health center. That general medical and surgical clinics, orthopedic, obstetrical, gyne-

cological, dermatological, eye, ear, nose, and throat and other branches of dispensary service can thus be effectively set up in association with the primary preventive and educational activities, is a point the pamphlet makes. In smaller communities, the health center may provide a desirable meeting place for the medical profession of the vicinity. The provision of adequate medical consultation service is an important means of uncovering disease in the early and more curable stages. This means that highly qualified medical experts are placed at the call of the practicing physicians of the community under a plan which has the endorsement of the profession and the public. This combination of consultation service and diagnostic clinics has been taken up in many places.

The public health center will be fundamentally concerned with the education of the people in the matters of health and the prevention of disease, and will rather be a place where people will be taught how to keep well than a place to which they will go to be cured of any considerable illness.

How the local chapter may proceed in establishing a health center is described in the last few pages of the pamphlet.

SCHOOL AND HOSPITAL AT PEKING

The Rockefeller Foundation through its subsidiary, the China Medical Board, is building in the capital of China a modern medical school and hospital together with groups of houses for members of the teaching staff. The completed plant will include laboratories for anatomy, physiology, and chemistry, a special building for pathology, a 250-bed hospital, a private patient building with twenty-seven rooms, a large out-patient department, a hospital administration unit, a nurses' home, power and gas plants, and an animal house. The faculty residences, grouped in two walled areas or "compounds," are of fireproof construction, and are supplied with every modern convenience including pure water, electric light, and fuel gas. The buildings embody certain characteristic features of Chinese architecture. The main roofs and the pent roofs are covered with glazed green tile made in one of the Imperial tile factories. The eaves and porticoes are embellished with gaily painted decorations in red, blue, green, and gold. The Chinese have already christened the group of buildings "The Green City." Three of the teaching laboratories were occupied October 1 of the present year. It is expected that the entire plant will be completed by January 1, 1921.

Members of the construction group and teaching staff of the Peking Union Medical College assembled before a partly completed entrance of the new medical school being erected by the Rockefeller Foundation, through the China Medical Board.

TRAVELING HOSPITAL PROVES SUCCESS IN PORTLAND, IND.

By J. BRYSON, President, Jay County Tuberculosis Association, Portland, Indiana.

A traveling hospital for special tuberculosis cases is a novel idea which has been put into practice in Portland, Ind. by the Jay County Tuberculosis Association. The little hospital has been built primarily for use in active cases of tuberculosis, so that it can be moved right into the yard of the patient's home where he can be isolated and yet served by his own family. It may also be used in cases that require quarantine. By the laws of the state if a family is quarantined the township must feed them. Quarantining the patient in the little hospital (unless he is the bread-winner) leaves the rest of the family free and saves the township the expense of feeding them.

The idea of building the traveling hospital developed when the association began to plan to build a standard tuberculosis hut. They found that the hut would cost

about $130 and, with the usual construction, could not be moved more than four or five times before it became "junk." Consequently the visiting nurse, Miss Dessie Kelsey, was asked what would be the least possible space required to give comfort and good service to the patient. She said a house 8 by 12 feet outside dimensions would do.

Traveling hospital in one of its temporary locations.

With the siding and 2 by 4-inch studding, this left the inside dimensions 7½ feet wide by 11½ feet long. Two by six-inch timbers were used under the frame, all material was planed both sides, roof sheeted solid, and shingles of asbestos used. The house was built 7½ feet to square and the roof pitched at an angle of 45 degrees.

A standard 2 by 8—6 by 8 door is at one end of the building, with a window on each side of it. There is a window in the center of each side of the building and one in the rear. All windows are standard 24 by 29 inches and placed the regulation distance from the floor, except the window in the rear which is placed 42 inches from the floor so that no air will strike the patient directly. All the windows and the door are furnished with screens, and the window screens and windows are interchangeable and fasten in with hooks. They are painted with two coats of white paint, inside and out. The roof angle inside is painted an olive green.

The wheels are standard auto-truck, 3½-inch tire face, steel tire, army transport hubs, fitted to steel axles. The axles are clamped solid to the sills of the building with "U" bolts. When the cost of a fifth wheel for turning was figured, the cost was so great that it was left out and the building made rigid. The weight of the building is 3,600 pounds. To make the building in its rigid condition follow the motive power, an old-fashioned wagon-brake was put on the rear wheels. On a paved street this is applied in force and just permits the rear wheels to turn, leaving the front wheels free. Thus they move readily from side to side, following a tractor.

A wire rope sling was bolted to each corner, passed through the siding, and looped with a clamp into which a chain is hooked for movement. The wheels, axles, and pulling loops were all donated, as well as the machine work on the axles and the blacksmith work on "U" bolts. For this reason the cost of the building as it stands cannot be given. The cost outside of that donated was $180 for the building, and $75 for the equipment—standard hospital bed complete, side table, serving table, and rocking chair. The building is heated with a small stove. With reasonable care the building should give service for ten years, estimating six moves per year. It can be moved one mile in an hour with a tractor.

In a small town like this, of about 6,000 people, it is not practicable to have both a Tuberculosis and a Visiting Nurse Association and expect both to be a moving force continuously. So both work in harmony and close association. The people require a great deal of education in matters of health, and the little hospital is worth all its cost in money, thought, and labor if merely an educational force in this vital cause.

REGISTRATION OF TRAINED ATTENDANTS PROVIDED FOR IN BILL

A bill to amend the public health law in relation to the practice of nursing, will be reintroduced into the 1920 legislature of the state of New York. It provides among other things for the registration of trained attendants. The section on the registration of nurses covers the "trained, certified, and graduate" nurse as well as the registered nurse. The bill, which hitherto read "Any person . . . . who shall have received . . . . a certificate of his or her qualifications to practice as a registered nurse," will be amended to read "Any person . . . . who shall have received . . . . a certificate of his or her qualifications to practice as a trained, certified, graduate, or registered nurse shall be entitled to practice . . . ."

The new section on "Who may practice as trained attendants" is especially worthy of note. It reads:

"Any person being over the age of eighteen years and of good moral character, holding a certificate from a school for training attendants connected with any institution giving a course of at least nine months including six months' practical experience, and registered by the regents of the university of the state of New York as maintaining in this and other respects proper standards, all of which shall be determined by the said regents, and who, after a practical examination, shall have received from said regents a certificate of his or her qualifications to care for the sick as a trained attendant, shall be styled and known as a trained attendant, and no other person shall assume such title, or use the abbreviation T. A. or any other words, letters, or figures to indicate that the person using the same is a trained attendant. Before beginning to practice, every such trained attendant shall cause such certificate to be recorded in the county clerk's office of the county of his or her residence, with an affidavit of his or her identity as the person to whom the same was so issued and of his or her place of residence. In every year during the month of January every trained attendant shall again cause his or her certificate to be recorded in the office of the regents of the university of the state of New York, with an affidavit of his or her identity as the person to whom the same was issued and of his or her place of residence at the time of such registration. The registrants shall pay to the regents a fee of fifty cents for each such registration. Nothing contained in this section shall be considered as conferring any authority to practice nursing as a registered nurse, or to practice medicine or to undertake the treatment or cure of disease in violation of article eight of this chapter."

Certain rules have been added to the section on the board of examiners, and a new section providing for examinations, licenses, and registration has been added. The candidate who wishes to be admitted to the examination for registration, and licensed to practice nursing as a registered nurse, shall pay the fee of ten dollars and submit satisfactory evidence as to age, moral character, preliminary education, and training school diploma. The requirements for trained nurses are also stated.

Trained attendants are provided for as follows:

"The regents shall admit to examination for registra-

tion and may license to care for the sick as a trained attendant, any candidate who shall pay the fee of five dollars and submit satisfactory evidence verified by oath if required that he or she:

"(a) Is more than eighteen years of age and of good moral character.

"(b) Has a preliminary education, accepted by the regents of the university of the state of New York.

"(c) Holds a certificate showing graduation from a course of at least nine months' training given by a school, association, hospital or sanitarium approved and registered by the regents of the university of the state of New York.

"(d) Passes the examination for trained attendants."

A candidate may be licensed by the regents as a trained attendant, provided application is made before the first day of January, nineteen hundred and twenty-one, who

"(a) Pays a fee of five dollars.

"(b) Submits satisfactory evidence that he or she is more than eighteen years of age and of good moral character.

"(c) Submits satisfactory evidence that he or she has had two years' experience in the care of the sick.

"(d) Whose qualifications to practice as a trained attendant are certified to by three licensed physicians who have personal knowledge of the applicant's qualifications.

"(e) Passes the examination for trained attendants."

OHIO HOSPITALS HOLD CONFERENCE WITH STATE DEPARTMENT OF HEALTH

In accordance with the policy of the State Department of Health to consult with representatives of hospitals and dispensaries of Ohio in discharging the provisions of recent hospital legislation, the initial conference for this purpose was held on December 3, in Columbus. For present purposes, these legislative measures provide for a survey of the hospital and dispensary facilities of the state and require hospitals to register with and report annually to the State Department of Health.

In response to thirty invitations to hospital people, in an attempt to represent the various kinds and sizes of hospitals operating in the state, together with representatives of organizations interested in hospital matters, twenty persons were in attendance. Small institutions were not well represented in spite of a special effort to have them present. The Ohio Hospital Association was represented by practically a full attendance of its executive committee in addition to other prominent members.

Senator Howell Wright, secretary, Cleveland Hospital Council, and member of the Governor's committee, whose report was the basis of the above mentioned legislation, spoke briefly on the origin and the intent of these measures. Dr. A. R. Warner, secretary, American Hospital Association, presented a paper emphasizing the need of such legislation both from the public and the hospital viewpoint and offering a form of uniform annual report to be made by the hospitals to the Department of Health.

Upon motion to that effect, the executive committee of the Ohio Hospital Association appointed a committee of three to meet with the representatives of the State Department of Health, actively coöperate in formulating a general program and advise in the essential details that will arise in connection with this work.

Hospitals not affiliated with the Ohio Hospital Association are represented on this committee. The personnel of the committee is Dr. A. R. Warner, secretary, American Hospital Association, chairman; Dr. A. C. Bachmeyer, superintendent, Cincinnati General Hospital, and Dr. M. H. Cherrington, Cherrington Hospital, Logan, Ohio.

This committee, with the State Bureau of Hospitals representing the State Department of Health, will endeavor to agree on the form of annual report in time to have it printed and in the offices of Ohio hospitals before the end of this year so that report of the hospital work for the year 1919 may be made and in order that hospitals may keep such records for 1920 as will enable them to make a more complete record for 1920.

STATE SUPERVISION OF MEDICAL INSTITUTIONS IN OHIO*

By A. R. WARNER, M.D., Secretary, American Hospital Association

Among the fundamental rights of the individual citizens of this and every commonwealth is the right to health, or at least the right to opportunities, conditions, and facilities necessary to maintain health. This right is attested and recognized by the state in many forms of health laws and customs, but the work and facilities of hospitals has not heretofore been given consideration. The state recognizes and exercises the duty to license and supervise the personal agents through which the citizen obtains aids to health, as the physician and the nurse. It is, therefore, quite in harmony with this established principle that the state now undertakes the corresponding responsibility to fix the public status of hospitals and other medical institutions and to supervise them. In doing this, one important factor, entirely neglected in the supervision of the personal agents, will come up pointedly for consideration by the state. It will be recognized that hospital service should be available on some terms to all the citizens of the commonwealth. You will at once appreciate the many facts and problems that consideration of this point will bring into prominence.

This right of the people to health is quite indefinite and as yet poorly safeguarded, because the individual citizen has indefinite ideas as to the necessities for health. He has little idea what he should demand and what he should have. Upon the state, therefore, rests the unusual responsibility to assume the initiative in these matters and to act without a harmonious and concerted demand from the people.

State Licensing May Have Faults

It is probable that state licensing and supervision of medical institutions will develop the same defects and criticisms that now attend state licensing and supervision of the personal agents, i. e., physicians and nurses. This in itself, however, is not a valid argument against such supervision. Protests, however, will become valid if the state should, in the supervision of hospitals, include details not based on, and essential to, the fundamental and simple principles involved in the state's responsibility for the fixing of public status and for the supervision of the work of the medical institutions purporting to promote and safeguard the health of the citizens. There may be medical institutions in the state not functioning as proper aids to health. It is clearly the duty of the state to determine this and, if such are found, the duty of the state is equally clear. All *bona fide* hospitals are vitally interested in this and wish to help all they can, and they recognize that they can help best by aiding the Hospital Bureau of the State Department of Health and the establishment of a strong system of reporting.

*Paper read at meeting of hospital representatives with Ohio State Department of Health, Columbus, Dec. 3, 1919.

It is, of course, nothing short of ridiculous for the state legislatures to determine the fundamental qualifications necessary to practice medicine, yet no other way has been found and the results are really better than there is any reason to expect. This situation will be unchanged as to hospitals, yet it seems a necessary part of the program. So why complain. But any "standardization of hospitals" to the general advancement of the institution throughout the state seems impossible. We must expect from state licensing and supervision of hospitals results quite similar to the results of state licensing and supervision of medical practitioners. A minimum will be established, but there may be this difference. The state may require that the institutions keep up to this minimum.

Obvious duties and responsibilities of the state have been stated. We, as individuals and as hospitals, are an integral part of the state and we, as individuals and as hospitals, have identically the same duties and responsibilities to meet in so far as we are called upon to meet them.

If we subscribe to a program of principles, rights, and duties we must do our part in carrying them out. At least there is no propriety in any hospital advancing any argument or opposition now that was not presented to the legislative committee considering this bill before it became a law. In fact, the real situation among the hospitals seems a general approval of the law and a general desire to help develop the idea, the law and the necessary machinery.

Hospital Figures to Express Facts

May I assume that my experience as a hospital superintendent, and my connection with the work of the Cleveland Hospital Council, the Ohio Hospital Association, and the American Hospital Association will justify my having opinions as to the facts to be reported by hospitals which will give the state the information necessary properly to protect citizens from fraud and to promote the extension of valuable hospital facilities and practices, and that this experience will justify the frank expression of these opinions to you? There have been various occasions for collecting hospital figures which express accurately the facts as they are and not the hopes, wishes, or ideas of the superintendent, staff, or anyone else. Considerable study has been given to the forms of the questions designed to secure such facts. The attached forms are submitted to this bureau as representing opinions formed by experience and with the earnest request that they be given consideration. The forms cover only the work of the institution and the cost. The hospitals may be assured that they contain no foolish or irrelevant questions and that due consideration was given to the connection between each question and the need of the state for the information to protect the public. There is perhaps this exception. The full and frank statement of the expenditures of private institutions is essential. The source of the funds of these institutions not paid by patients for service is not essential, yet vaguely stated simply make the figures balance. This form of financial report can be used by more hospitals of Ohio than any other form. The system is designed so that detail figures can be filled in anywhere, but all details can be omitted and the main question of expense settled through the figures for total operating expense and total operating income or receipts. Every hospital can furnish these figures.

It is certainly a better principle to ask for as few figures as possible of a hospital, and these basic figures, and compute from them various other figures which you may desire, rather than request hospitals to report these detail figures directly. For example, there is no uniformity in calculating *per capita* cost, as various hospitals have developed the use of various exceptions and modifications, and their published figures are of no value to the state. The only *per capita* cost which you can apply uniformly is the quotient of the total operating cost divided by the total number of days of treatment given. It will lead to great confusion to use the detail figures submitted by hospitals and to criticism to change them. The computation of figures in the office of the bureau has every advantage. It is strongly urged at this time you do not attempt any classification of the medical institutions in the collection of data, that one blank be filled out by each institution reporting its work, and that any necessary classification or special grouping of data or computations be made by the bureau in its office from the basic figures reported. From the reports you can identify the maternity hospitals, the dispensaries, or any other class required by state laws or customs to be grouped separately.

The whole question of the classification of hospitals and the classes of work to be grouped in one institution is now under national discussion. The future growth of the institutions will be determined largely by the results of the studies now contemplated. The Hospital Bureau of the Ohio State Department of Health will only introduce future complications and trouble for itself by fixing at this time any classification at all.

INMATES OF HOSPITAL FOR INSANE PUBLISH SUCCESSFUL PAPER

By George B. McMurray, M.D. Assistant Physician, New Jersey State Hospital, Morris Plains, N. J.

The Psychogram, the monthly paper published by the inmates of the New Jersey State Hospital for the Insane, at Morris Plains, N. J., was begun with the intention of not only creating a diversional occupation of the highest therapeutic value, but also of furnishing a medium through which a closer contact with the social life of the community might be afforded the inmates and their friends. We had heard of similar publications by institutions other than hospitals for the insane, but knew of none published by any institution such as ours in this country with any degree of regularity.

Since the New Jersey State Hospital has an inmate population of over 2,800, Dr. Britton D. Evans, superintendent, felt that if such a publication were to be started, it should receive our careful consideration and constant attention, and be made an immediate and permanent part of the work carried on here.

Arts and Crafts Not Sufficient

Diversional occupation is not a new departure in therapeutics with us, for it has always been our practice to afford such relief wherever possible in those cases responding to such treatment. Observation of such cases caused us to realize the need of a broader field of therapeutic activities than that afforded by the hospital organization as it existed, and this feeling, coupled with a growing interest on the part of the medical profession and the public generally in this feature of our work, led us to take the step forward and to establish a paper, in 1916.

Other institutions, both public and private, had long ago introduced what were known as arts and crafts shops, with highly beneficial results. We had been steadily moving in this direction, although we were greatly handi-

capped for lack of funds. But even the arts and crafts equipment would not meet our requirements, since there was a large group of patients who expressed no desire for diversion of this sort, and opposed the idea when questioned as to their inclination or ability. Among these were many possessed of considerable literary talent or ambitions, who indulged in flights of fancy; idealists who longed to put their ideals into words; moralists and humorists who delighted in quips and jibes. None of these displayed the slightest interest in the arts and crafts project.

For these, then, why not a newspaper? Here, perhaps, was the very thing needed to arouse these poets, dreamers, and prose writers, to indulge them in this fancy so that they might be freed of others that weighed upon their minds or held them obsessed. The medical profession recognizes that a victim of mental disorder may talk nonsense regarding some delusion, and yet think sanely, even brilliantly, in other matters.

General view of printing shop where the *Psychogram* is printed by patients.

The cost of the enterprise was to prove not inconsiderable. We could afford no mistakes, but we went ahead with the idea, determined that it should be a success notwithstanding the doubts and fears of some of our critics. And so *The Psychogram* was born; ushered into the world with much shaking of heads on the part of the skeptical, and many predictions that the paper would be a failure. Its sponsors, however, were confident of its success, watched affectionately its first efforts to toddle, and rushed with outstretched arms at the least outcry. August 21, 1919, marked the third birthday of this thriving, active infant, a most interesting member of the community, welcomed wherever it goes, and, notwithstanding its tender years, a most helpful member, too. Its cheerful countenance, bright sayings, and newsy, entertaining talk receive the attention of old friends and new, arousing interest for the institution and its work.

Purpose of the Publication

A foreword on the editorial page sets forth the object kept constantly in view, the first consideration in the makeup of the paper: "*The Psychogram* is published chiefly for the purpose of arousing a spirit of congeniality among all those who are residents of this institution, to encourage intellectual and moral improvement in the personalities of all those who have occasion to read it; to bring cheer and gladness to patients who are separated from their friends and relatives; and for the purpose of giving reliable information to the friends, relatives, and such members of the general public as may be interested in the conduct and welfare of this large public institution maintained at Morris Plains for the treatment and care of persons suffering from the various forms of mental derangement."

As a therapeutic feature of our work, *The Psychogram* ranks second to none, as is evidenced by its growing popularity among the inmates. This interest is shown not merely in the reading of the paper, but in writing for it and working in the print shop. The print shop is a modern building devoted almost exclusively to the art of printing. The work and surroundings are pleasant, the equipment modern, while the lighting, ventilating, and other environmental conditions have been carefully considered both in design and construction. The growing activities in the development of the paper, on the part of the inmates, tends daily to win new recruits in its editorial and contributing staff, thus calling for an increase in the force. This call meets a quick response from those who prefer this sort of diversion.

Patients who, hitherto, have been indifferent to the attractions and inducements of employment in other arts and crafts departments, who have sat brooding hour after hour for years over their troubles, real or imaginary, never reading a newspaper or even entering into conversation or games, have aroused from this condition, developed a keen interest in some part of the work involved in publishing *The Psychogram*, and have been gradually drawn into the social life of the institution.

In the organization of the editorial, business, and other departments of the paper, we have followed the practice of the ordinary newspaper. The editor and his associates are patients whose inclinations and ability have placed them in these positions by general consent. No restrictions are placed upon them other than those customary in the publication of a high class periodical. Acting under the editorial staff are the reporting and contributing staff, and a force of operatives including proofreaders, typesetters, printers, cutters, and binders. So far as possible, it is our policy to avoid in any way influencing the management or makeup of the paper, preferring to leave this entirely in the hands of the patients. However, all articles are reviewed by a member of the medical staff whose approval must be obtained before they go to press.

That everything possible may be done to arouse and maintain interest and provide the best possible instruction in journalism, editors of local papers are from time to time visitors at the institution for the purpose of delivering short talks or lectures on journalism and its various features. Contributions from those without as well as within are solicited and gladly received, and a serious effort made to keep patients in touch with all who may be interested in their welfare through their paper. Suggestions are made to outside contributors as to the theme and treatment most likely to be helpful.

Of the contributing staff, composed largely of inmates, some are in daily attendance at the shop, some are occasional visitors, while others never visit it from one year's end to the other. Those desiring to remain anonymous are permitted to do so. The policy of non-interference is again maintained. Whatsoever their tastes and inclinations prompt is accepted, provided only that it is an expression in readable English. A reporter covers each hall, writing up in humorous or serious vein such incidents as he regards worthy of notice. Much attention is paid to local briefs, and items of interest gathered from farm and garden. Each department in which the inmates are employed has a reporter among its forces.

Primarily then, as a therapeutic feature, this monthly publication by the inmates has justified its existence beyond all question, for even in the case of those who persisted in the discussion of their delusions in the pages of the *Psychogram* there has been a marked change in demeanor. We find that those who had hitherto proved a source of considerable anxiety to the physicians in charge, and a constant source of annoyance to their fellow inmates, now contentedly write up their thoughts, industriously at work eight hours of the day assisting in the publication, the monthly appearance of which is eagerly looked forward to by their fellows as well as themselves.

Patients setting type for *Psychogram*.

Work at St. Dunstan's Soon to Cease

St. Dunstan's, Regent's Park, the beautiful London home of Mr. Otto Kahn, the American millionaire, which has been used during the war for the care of blinded soldiers, is soon to be returned to him, it is stated. Mr.

Kahn lent the house and grounds to Sir Arthur Pearson. The Blinded Soldiers' and Sailors' Committee estimates that the grounds and out-buildings will be sufficient to complete the training of the men suffering with blindness owing to the war, and that need for the work will cease by the end of 1920.

RED CROSS ISSUES ANNUAL REPORT TO AMERICAN PEOPLE

A report to the American people by the War Council of the American Red Cross through Henry P. Davison, chairman, has just been issued. The report, covering the period from July 1, 1917, to February 28, 1919, represents a painstaking effort made in the months since the major war-time work was closed in rounding up facts and figures which could not be catalogued precisely while the activities were in progress, because of the ever-changing situation, and the constant meeting of unexpected emergencies in the theatre of war.

Red Cross revenues for the twenty months ending February 28, 1919, totaled $400,000,000 in round figures. Of this amount $263,000,000 was received at National Headquarters and $137,000,000 was received and held by chapters for production and expenses.

Expenditures for the same period totaled $273,000,000. Expenditures in France totaled $82,000,000, of which $57,000,000 was appropriated from National Headquarters, the remaining $25,000,000 representing the cost of chapter produced articles distributed. For work elsewhere overseas the expenditures were $72,000,000, and of this amount, $64,000,000 was appropriated by Headquarters and $8,000,000 represents the cost of chapter goods distributed.

For work in the United States $119,000,000 was expended. This amount comprises $48,000,000 by National Headquarters, $43,000,000 by chapters and $28,000,000 in cost of chapter produced articles distributed.

On February, 28, 1919, there was a balance of $41,000,000 in cash and $53,000,000 in supplies at National Headquarters, and $33,000,000 in chapter hands. The report points out that in connection with this balance of $127,000,000 several things should be borne in mind, because this figure gives no indication of the greatly reduced amount which would probably be available eight months later. This is true because the cash in the hands of chapters supplied local needs during the spring and summer; and the supplies in the hands of divisions and overseas commissions represented work undertaken before February 28. On that date they were being utilized as rapidly as possible in completing these old obligations.

Returning Soldiers' Needs Heavy

The $41,000,000 unappropriated cash then in the hands of headquarters represented the only resource available for new undertakings or for carrying on the great bulk of the work for which no further financial provision had then been made. The obligations of the Red Cross committed it to continuing service in virtually every line of activity, and many of these activities continued to expand for a period. Indeed by the very nature of the case expenditures concerned with the return of our soldiers and the caring for the recreational needs of the sick and wounded did not reach their zenith until a somewhat later date.

Of the $400,000,000 received in voluntary contributions and subscriptions, $42,000,000 came from membership dues and $283,500,000 from the war drives. The remainder came from so many different sources that specific mention was impossible in the report. The entire amount of war-drive proceeds retained by National Headquarters was placed in the war fund, which could be used only for war-relief projects. To this fund also was credited interest earnings to the amount of $2,766,403.54. As a result of this practice, more than $1.01 was available for war relief, for every dollar received for that purpose.

On May 1, 1917, just before the appointment of the War Council, there were 562 chapters with an adult membership of 486,194. On February 28, 1919, there were 3,724 chapters with 17,186 branches, embracing a membership in round figures of 20,000,000 adults and 11,000,000 juniors. Virtually every square mile in continental United States, the report points out, is now covered by some form of chapter organization, while there are fifty-four chapters in insular and foreign places.

The section devoted to work in the United States shows that 8,000,000 chapter women, with the help of many of the junior members, produced in the twenty months' period more than 371,500,000 relief articles with a value of nearly $94,000,000. There were produced 306,966,759 surgical dressings, value $14,637,909; 17,462,400 hospital garments, value $22,969,585; 14,211,439 hospital supplies, value $5,966,854; 6,328,982 refugee garments, value $7,779,055; 23,328,831 articles for soldiers and sailors, value $41,858,274; 3,279,053 unclassified articles, value $766,316.

In addition to the above, chapter workers made 22,637,625 special relief articles required by the surgeon general of the United States Army, for which the Government furnished the raw materials. Relief articles produced by the Junior Red Cross amounted to 15,722,073, with a value of $10,152,461.96.

Relief Supplies Counted by Millions

The transactions of the Department of Supplies, which was responsible for all centralized purchasing, during the twenty months—the figures including finished articles received from chapters as well as goods bought and sent to chapters and shipped abroad and to camps in this country—aggregated $161,400,000. The percentage ratio of operating expense to transactions in the conduct of this department, with branches in all the divisions, was three and four-tenths per cent.

Purchased goods shipped overseas up to February 28, 1919, aggregated more than 101,000 tons, or approximately 5,055 freight car loads. Their value was approximately $31,200,000. If the value of chapter produced articles were added, the amount would be increased by more than $50,000,000, so that overseas shipments exceeded $80,000,000. Large purchases, aggregating millions of dollars, also were made in various parts of Europe.

One of the noteworthy things shown by the detailed report is that for each dollar received only one and seven-tenths cents was spent for "management." The percentage ratio of "management" to "relief" was one and eight-tenths per cent.

In connection with an exhaustive description of the many Red Cross activities, the War Council's report gives the following revised figures on appropriations for cash expenditure in France:

Canteens and rest stations, $3,162,916.83; general services for A. E. F., $11,349,970.42; care of refugees, $9,225,806.34; care of children, $3,013,505.93; medical and surgical service, $3,711,783.55; hospital supply service, $2,143,697.45; tuberculosis relief, $2,372,619.61; surgical dressing stations, $3,311,017.84; nursing service, $1,239,292.58; aid to disabled soldiers, $623,746.23; relief of French soldiers' families, $3,825,971.03; aid to French Red Cross,

$1,751,493.69; transport service, $5,298,663.29; other relief operations, $1,226,374.72; miscellaneous, $4,338,870.12. Total, $56,595,729.63.

Appropriations for cash expenditures elsewhere overseas were:

Belgium, $3,875,161.12; Italy, $11,972,819.11; British Isles, $11,267,304.53; Switzerland, $5,972,777.38; Palestine and Near East, $8,320,111.32; Balkans, $4,569,868.96; Russia, excluding Siberia, $2,240,167.02; Siberia, $8,225,769.67; other activities overseas, $7,396,575.93. Total, $63,840,655.04.

The section of the report devoted to work with the American Army also reviews the many activities pertaining to that branch of the Red Cross service, and will be valuable for reference purposes long after the generation which witnessed and participated in the work has passed away.

HOSPITAL SOCIAL SERVICE

By MRS. ALFRED COOK, President, Social Service Auxiliary, Mount Sinai Hospital, New York*

The importance of medical social work in the community is being widely recognized and much has been written on the subject by professional workers who, through their many years of experience and study, are well qualified to discuss the theories and problems in this field of work.

I am limiting myself, in this paper, to a report of the Social Service Department of the Mount Sinai Hospital. This department was started in 1906 and has gradually grown until it now consists of a staff of twenty workers with our head worker, Mrs. Mabel Montgomery Boorum, in charge. The work is divided as follows: One worker covers the medical wards in the hospital; another the surgical wards; there are two workers in the children's department, three in the tuberculosis clinic, one in the adult cardiac clinic, two in the children's cardiac clinic, two in the orthopedic and poliomyelitis clinic, with a part-time assistant, and two workers for the follow-up work of luetic cases. An investigator visits the home when it is doubtful whether patients are entitled to free hospital or dispensary treatment. Every afternoon a kindergarten teacher comes for two hours to teach and entertain the children in the wards who are well enough to go up to the roof where a room was equipped for their use. Three clerical workers also are included on the staff.

This seems a very large department, but even so it does not cover either the admitting department of the hospital or many of the dispensary clinics, and the demands made upon us are such that we cannot always do the intensive work that we should like to. Some of the figures in our annual statistical report give an idea of the volume of work accomplished during the year 1918. We had under our care 7,570 cases of which 4,601 were new. We had 38,689 consultations in the office and wards. The workers paid 17,601 visits in the homes and 1,955 visits of cooperation with outside agencies. We referred 3,931 cases to cooperating agencies, hospitals and dispensaries, and 1,282 were referred by agencies to us.

Were I to present all of the statistical report it would, however, not include all the services of our workers, for during the course of the day much is done of which no record can be made. An undue amount of time would have to be given to clerical work should a complete and full report be made of all that is accomplished by our workers. Many a note is written, a message sent, words of advice and encouragement offered, inquiries answered or consolation given to someone who has suffered the loss of a dear one—these are some of the small services which our workers are called upon to render and which mean so much in establishing a proper relationship between the patient and the hospital.

Although there have been paid social service workers in the Mount Sinai Hospital since 1906, the social service auxiliary, which consists of a board of twenty women, was organized only two and a half years ago and I believe that the auxiliary has proven valuable in many ways. The workers have often expressed their appreciation, not only of the actual work done by the members of the board but of their sympathy and understanding of the difficulties which present themselves.

With the growth of our department, the board of the social service auxiliary has been subdivided into various committees. There are committees for the children's department, the tuberculosis clinic and the cardiac clinics. By subdividing the board of the auxiliary into committees we are able to follow many more cases carefully.

A committee on employment takes up cases for employment, which often require more time than our staff workers can give. It is not an easy task to get work for the handicapped but there is no more constructive manner of aiding a family than by increasing its earning capacity.

A clothing committee collects and takes care of all the clothing, both old and new. Seventy women, divided into various sewing groups, meet regularly every week and have not only made hundreds of garments but have met the expenses of the same.

Although we are supported by hospital funds and the Federation for the Support of Jewish Philanthropic Societies, we cannot meet all the needs brought to our notice and the members of the auxiliary are always generous in giving financial assistance.

A large group of volunteers have been of great value, doing clerical work, making home visits, and acting as clinical secretaries. The clinical secretaries have assisted the doctors in the dispensary by interviewing patients and writing up their histories. They were especially helpful in the past year when the doctors were overburdened with work owing to the condition of war. The volunteer, when working in a clinic where there is no paid social worker, has the opportunity to bring many cases which need our assistance, to the attention of our workers.

The activities of the social service department are many and varied. Medical social care, as the name implies, includes not only supplementing the work of the doctors from the medical viewpoint, but also in bringing to the doctors the social and economic aspects of the case, without which a patient often cannot be successfully treated. Every existing social problem confronts our workers and the fact that physical disability is so frequently involved, makes them particularly difficult of solution. Mrs. Boorum, our head worker, has recently enumerated the various types of services which a hospital social worker is called upon to do. They are as follows:

1. Arranging for advised hospital care.
2. Arranging for examination and care of families exposed to contagious and infectious diseases such as tuberculosis and lues.
3. Securing institutional care for adults and children.
4. Securing convalescent care for adults and children.
5. Securing after care for patients discharged from hospital.
6. Instructing patients and families in the laws of hygiene.
7. Instructing patients and families in the proper use

*Read before the National Conference of Jewish Charities, Atlantic City, 1919.

of food, paying special attention to the feeding of young children.

8. Securing positions for handicapped men and women.

9. Carrying whole families over the trying period when father or mother or both are in the hospital.

10. Procuring temporary shelter for children whose mothers are ill in the hospital.

11. Providing and supervising wearing of appliances ordered by physicians or surgeons.

12. Arranging for the installment plan payment on expensive appliances.

13. Giving emergency relief.

14. Finding new positions for breadwinner of families after illness or convalescent care.

15. Arranging for special care in schools for retarded development cases, cripples, chorea, and cardiac cases.

16. Obtaining prenatal care.

17. Obtaining scholarships for children who would otherwise be forced into the world of industry.

18. Sending children to the country.

19. Preventing the readmission of patients to the hospital through careful supervision and home care.

20. Cooperating with all relief agencies, charity organizations, other hospitals, churches, public schools; in short being useful to all agencies and utilizing all their resources.

The activities of each department are, in certain aspects, individual to itself. The main office, where our head worker and two workers of the adult wards have their desks, is usually a very busy place. Frequently during the course of the day either the attending or house physician, or perhaps the nurses in the wards, come in to discuss the needs of one of their ward patients. The physician in the admitting room refers many applicants to us and we have a large number of visitors from other organizations who come in for information about some one they may be interested in, or to ask for our cooperation. Our workers not only interview every free patient in the wards but when they realize that a ward patient who has paid in part for his hospital care (ward patients at Mount Sinai are never charged full maintenance rates, and no ward patient pays anything for medical service) is obliged to remain over an extended period of time, and may not be able to continue payment without hardship to the family, they arrange to have such payments canceled. Many cases are referred to us by the dispensary doctors where there are no paid social service workers.

In the tuberculosis clinic it is very essential to teach the patient, not only to take proper physical care of himself, but to eliminate as far as possible, the danger of infection to those around him. To move a family to sanitary living quarters, to secure sanitarium care for the patient, to provide extra nourishment, to constantly try to educate the families in the laws of hygiene—these are the methods which a worker employs to improve the condition of the family. Preventive work is effected by giving extra nourishment, usually milk and eggs, to members of a tuberculous family who are in a run-down condition and who would be particularly susceptible to contracting the disease.

In the orthopedic and poliomyelitis clinics a considerable part of the time of the workers is given to massage and treatment. This may be regarded as purely medical work, but the workers take advantage of the regular weekly attendance of the children in the clinic to teach the mothers to take proper care of their little ones. Children who formerly were always dirty and ill clad, now come looking as neat and clean as one could wish.

With the kind cooperation of the Union Settlement, our very friendly neighbor, we have had classes in corrective exercises under the most experienced leaders. Individual attention has been given to cases of severe deformities. The children visit the clinic for examination and records are kept of the general condition, weight, and chest measurements of each child. The children have shown marked improvement. Cocoa has been served to the children after their exercises. At first they refused to drink the cocoa, for they doubtless were accustomed to tea and coffee, but the children have come to like it and now think it a real treat—a lesson in itself which was well worth teaching.

In the follow-up of luetic cases, our most important duty lies in impressing the patient with the necessity of coming for treatment. It has frequently been stated that satisfactory results cannot be obtained in a luetic clinic without a social service worker. The busy doctor cannot give sufficient time to impress the patient with the necessity of regular attendance and continuation of treatment, and to teach him, not only to take care of himself, but to protect others from infection. It is the social service worker who also persuades other members of the family to come to the dispensary for examination and to undergo treatment if necessary. The character of the luetic work is of such a nature that the greatest tact and discretion of a worker is essential to get the cooperation of the patients. The very distressing results of the disease, coupled with the fact that usually a cure is effected if the case is treated in the early stages, convinces one that there is no more constructive work to be accomplished in a social service department than the follow-up work of these luetic cases. During the war our government has given a great deal of attention to the men suffering from luas. There is a growing public interest in coping with this social evil, and we want to do our share in alleviating a condition from which society is suffering so widely today.

In the children's department a special effort is made to do intensive work. A visit is made to the home of every little patient, before the child returns to the parents, to determine if we can safely send the child home again, and another visit is paid after the child is discharged from the hospital. The necessary follow-up work is done in these cases as in all others.

During the past summer we made some interesting comparisons, of the different methods of improving the condition of undernourished children. A large number of children received extra milk daily, and in some cases eggs were also provided. After receiving this extra nourishment for four months the average gain of the children was 4½ pounds. In cases where there was satisfactory cooperation between the family and the social service worker, we found the greatest gain, showing that the improvement was due not only to the extra nourishment supplied, but also to a more intelligent care of the children.

In the children's department, children between the ages of six and twelve years, suffering from malnutrition, were divided into three groups of forty each:

The first group, the country group, was sent for two weeks to some well-known summer home.

The second group, the roofgarden group, went to the Young Women's Hebrew Association roof every day for a period of two months receiving there a lunch in addition to cocoa in the morning. These children received instruction from an appointed school teacher.

The third group, the food group, were given food in the home, consisting of a quart of milk, two eggs, vegetables,

and cereals, daily, covering a period of one month. Instruction on relative food values was given to the mothers and children, and one of our nurses went to the homes to teach the mothers how to prepare the food. Three physical examinations were made of each child. A thorough preliminary examination was made. No cases manifestly tuberculosis or cardiac were accepted. Notes were made as to the weight, hemoglobin, etc. A second examination, made directly after the treatment, ascertained the immediate benefit. The third examination was made at the end of four months to ascertain the permanent benefits. The results were as follows:

The country group, at the end of four months, showed an average gain in weight of $3^{9}/_{10}$ pounds, the roof group an average gain of $3^{2}/_{10}$ pounds, and the home group an average gain of $1^{6}/_{10}$ pounds.

No very definite conclusion can be drawn from an experiment on so small a scale, but our results would seem to point to the fact that country care is a desirable form of social service, not only because of the gain in weight but also because of the mental stimulus afforded and it is likewise most appreciated by the parents and children. Where country care is unavailable, great aid can be obtained by roof care which means of course any open air recreation center where supervision is given and a luncheon served. Dr. Murray Bass kindly consented to examine these children and direct the work. Two of the members of the board of the auxiliary, Mrs. Arthur Lorsch and Mrs. Howard Cullman, devoted a very considerable amount of time during the summer to seeing that the work was properly conducted and they, in conjunction with Dr. Bass, have made a detailed report of this experiment.

The physician in charge of the cardiac group fully realizes that the successful treatment of cardiac cases depends largely on educating the patient in the laws of health and hygiene and our workers have been most conscientious in doing the close follow-up work that this treatment necessitates. It is very important for the parents to understand that a child suffering from heart trouble must be given special consideration and care. A considerable number of these children show very few signs of ill health between attacks and it is difficult for the parents to realize that the child must be protected and guarded in every way to avoid overstrain and its subsequent results. Friendly talks between the doctor, the nurse, and the mother and the child, have brought about a better understanding of the care of these cardiac children.

We have, at present, only one cardiac class in the public schools in our district. We earnestly hope that the department of education will see the necessity of establishing many of these special classes. There is an imperative need for these classes where the child who is handicapped from the beginning of life may receive special training and education in some branch of work which will enable him to take his place in the community as a wage-earner. Too much emphasis can not be laid on the importance of having a special physical record for every child suffering from cardiac disease. If this were done, a child entering school for the first time would be examined, classified, and spared much stair-climbing effort. As the child was promoted from class to class, each teacher would see by his card that the pupil was a cardiac case. She could then take special care of the child. This would not only protect the sick child but also prevent any potential cases from developing.

The adult cardiac evening class has been most successful. Two rooms have been provided, one for the clinical work and the other for a reading and rest room. The addition of this rest room has had a beneficial effect upon the patients, as they are at rest and occupied while waiting examination, and it is an advantage to have the doctor examine his patient under these conditions.

Besides the regular work, a social service department should be valuable in making special surveys, and well-kept records should provide much interesting data. For instance:—We were asked to state what type of convalescent home was most needed for our patients. By going over our records we could state accurately the number of discharged male patients from the surgical wards who were in need of convalescent care. There is also need of a convalescent home for patients suffering from illnesses which require special diet or care, such as nephritis, Hodgkins' disease, asthma, rheumatism and diabetes, a home which would be valuable for mothers and children under five years of age, and also a convalescent home for cardiac children discharged from the hospital whose physical condition is such that they require more supervision than the mother can possibly give them.

During the past year a special ward for tonsillectomy has been opened in the children's dispensary. The children are kept twenty-four hours and it was advisable to find out if their stay was sufficiently long to insure a satisfactory recovery from the operation. By having our social service workers weigh the children immediately before and one week after the operation, we found that the average loss in weight of thirty-four children was only fourteen ounces during the first week. In five cases where there was a loss at the end of the week of 3½ to 4 pounds, there was an average loss of only ten ounces at the end of the second week.

The social service worker must be prepared to meet any emergency. During the serious epidemic from which we suffered last fall, our workers gave their best efforts to cope with the difficult conditions which confronted us. All but the most urgent work in the department was eliminated and the staff devoted all its time to the sufferers. Not only did we care for our own cases, but, conscious of our duty to the community, we also attended 186 cases sent to us from the Henry Street Settlement. The nurses had the privilege of filling any needs that came to their attention. We sent doctors into the homes and paid for their services when necessary. Ambulances and taxicabs were used, and we gave relief in food, clothing and bedding. The hospital provided us with medical supplies and filled a large number of prescriptions. Upon recovery we sent patients to convalescent homes and, when that was not feasible, we provided extra nourishment until they had regained their health and strength.

A very large part of our work is cooperation with all social and medical agencies, both public and private. It is an interesting point to note that a comparison of the numbers of cases referred to us by cooperating agencies and by us to them in the past two years, shows that although fewer cases were sent to us in 1918 than there were in 1917 (and the reason for this was no doubt due to conditions of war which crippled many philanthropic agencies) a larger number were referred by us. This would prove that our staff is alert to the opportunities afforded to the community for medical and social betterment and their desire to take advantage of the same. It is not only the privilege but also the duty of social workers to take full advantage of all the assistance that existing agencies offer.

A question which frequently has been discussed is the amount of relief which should be given by a hospital social service department. The principle on which we work is as follows: Should the case be one where permanent relief is necessary, we ask the proper relief society, be it

the United Hebrew Charities, the Association for Improving the Condition of the Poor, or the Charity Organization Society, to handle the case. We have arranged with the United Hebrew Charities that they give what they consider an adequate budget for living expenses and that we give whatever is necessary for medical relief, such as dental treatment, convalescent care and medical appliances. In cases where relief is temporary, we think it is advisable to handle them ourselves. A relief organization makes a much more intensive investigation before determining the aid to be given, for their relief is usually given over an extended period of time. Such investigations require so much time that it is not expedient for the patient to wait before receiving the relief, nor would it be economically correct for an organization to devote a considerable amount of the time of a worker before giving relief when the expense involved is comparatively insignificant. Frequently temporary illness is the only cause for giving relief, and many of the patients do not want to be objects of charity. We therefore often give, with the idea that we will in time be reimbursed, and it is gratifying to note that, in the large majority of cases, the patients live up to their obligations.

The committee bears in mind that it must not pauperize the people and realizes that pauperization is caused both by giving too freely as well as by giving too stintingly. It is not always easy to determine when to give. One type of case which presents a problem difficult of solution is that of desertion. When an able-bodied man refuses to provide for his family it does not seem right to relieve him of his duties and so assume the responsibilities that should be borne by him. This also is true in the cases of the mother, who, often through ignorance or indifference, is neglectful of her children. It is, however, most distressing to stand by and see little children suffer for lack of the necessities of life. In such cases we often give extra milk or clothes to the children. This does not have a demoralizing effect upon the parents, and tends to preserve the physical welfare of the children. Only in extreme cases do we advise the commitment of children to institutions. It is the last resort after we have failed to solve the family problem in any other way.

There is an increasing demand for the public health nurse. To meet this need the Mount Sinai Training School for Nurses has, during the past year, given to some of its pupil nurses three months' training in the social service department.

Each pupil nurse is sent to the different departments in turn and is trained under the supervision of the worker in charge of that department. Short comprehensive talks on public health and case work are given by Mrs. Boorum, our head worker. The pupils attend the regular weekly committee meetings when cases are discussed and plans for relief are worked out. The pupil nurses were taken to the following places of interest: Children's Clearing House; Randall's Island School for Mental Defectives; Society for the Prevention of Cruelty to Children; Children's Court.

A day was spent in the public schools with the school nurses and another day was spent with the nurse in charge of the Department of Health Infant Welfare Station.

The following courses of lectures were given in the training school to the entire senior class:

1. "Social Needs and Normal Standards of Families." William H. Matthews, Director Family Welfare, Association for Improving Condition of the Poor.

2. "Food and Food Value." Miss A. Gillett, Director Bureau of Diabetics, Association for Improving the Condition of the Poor.

3. "Social Obligations to Childhood." Dr. Ira S. Wile, Associate Editor, *American Medicine.*

4. "Poverty, Its Causes and Relief." Dr. Lee K. Frankel, Vice-President Metropolitan Life Insurance Company.

5. "Medical Inspection of School Children." Dr. S. Josephine Baker, Director Bureau of Child Hygiene, Department of Health.

6. "The Children's Year." Mary Arnold, Executive Secretary Babies' Welfare Association.

The amount of time that the pupil nurses have given to social service has been entirely inadequate but it has been valuable as an experiment. There is a divergence of opinion as to whether a medical social service worker should be a graduate nurse. The opinion prevails among hospital social service workers in New York that the efficient hospital social service worker must be a graduate nurse. It is undoubtedly true, however, that part of the present curriculum of the training schools, as for example, experience in the operating room, might be eliminated and subjects dealing with economic and social conditions should be included in the course of training. A special course of training for medical social workers is needed. This need is well recognized by many people interested in the subject and no doubt such a course of training will soon be organized.

I fear that I have given a very bare statement of the scope of our work but I trust I have conveyed an idea of the underlying purpose which we have in mind—to so supplement the work of the hospital that the patients reap the full benefit of the medical care which the hospital offers.

OAK GROVE SANATORIUM TO CLOSE

The closing of Oak Grove, Flint, Mich., has been announced by Dr. C. B. Burr, president of the Oak Grove Sanatorium Corporation, and H. R. Niles, secretary, to take place April 28, 1920. The closing of Oak Grove as a hospital for the mentally sick, and the retirement of Doctor Burr, its medical director, from active practice, mark the passing of an institution which has grown steadily for a quarter of a century under the direction of Doctor Burr. The retirement of Oak Grove from the field of psychiatry has been necessitated by the purchase of the Oak Grove property, including the hospital buildings, by the board of education of the city of Flint as a site for the proposed $2,000,000 high school. It has long been felt by the directors that the magnificent tract of land covered with ancient forest trees, so carefully conserved during the years of the hospital's ownership and practically maintained as a city park in private hands, should be in the possession of the public. During the twenty-eight years (twenty-five under the present management), since Oak Grove was opened for the reception of patients, more than 2,200 people have been cared for. There is a movement on foot in Flint to organize a new corporation, purchase the old Flint Country Club, erect modern hospital buildings there, and open a similar institution to take over the present business of Oak Grove and perpetuate the hospital. It is felt that there is a crying need for such an institution, and in addition, it is a commercial asset which the city can ill afford to lose. Since Doctor Burr and the directors feel that they do not want to undertake the erection of a new institution of a similar character, the new institution will be under new management.

NURSING AND THE HOSPITAL

Conducted by CAROLYN E. GRAY, R.N.,
Secretary, New York State Board of Nurse Examiners,
135 E. 45th Street, New York City

NURSING EDUCATION AS A FUNCTION OF THE HOSPITAL

By LOUISE M. POWELL, R. N., Superintendent of Nurses, University of Minnesota Hospital, Minneapolis.*

As a member of the National League of Nursing Education, I count it a great privilege to be invited to take part in the discussion of this very important question. I wish to assure this organization that the organization I represent is ready and eager to give you the benefit of our experience and the knowledge we have acquired through long and painstaking study of the question.

Is it a function of the hospital to give a complete nursing education? To answer this we must settle two questions, what a complete nursing education is, and what a hospital is.

Nursing education is a much broader thing today than it was even ten years ago. A woman who graduates as a nurse to-day must not only be prepared to give personal care to the sick, she must be able to preach health to the well, to organize the health forces in a community, to fill any one of a dozen positions that were unknown ten years ago, but for which the fundamental training of a nurse is considered not only an asset, but almost essential. The field of the nurse's work is growing broader every day, and nursing schools in general are not preparing their students to meet the new demands made upon them.

What nursing education may we concede that a woman entering a school of nursing has a right to demand? (1) A thorough, well taught, adequate preliminary course in the sciences that are fundamental to the study of medicine and nursing. (2) A carefully planned course in the actual care of the sick, in a hospital or hospitals, in which practice and theory are well balanced and coordinated, and in which there is the same variety of services that our best medical schools feel to be necessary for their students. (3) She must, during her training, be given the opportunity to consider the patient from the social point of view. (4) At some time during her course there should be given a few months for specialization.

Fundamental Aim of the Hospital

Having briefly outlined the content of nursing education that may be given in three years, I would now turn to the second point to be settled—what a hospital is. I can do no better than quote Dr. A. R. Warner, president of the American Hospital Association, who, in his talk at the first American Hospital Conference said, "The fundamental aim of a hospital is service to society. Hospitals may benefit and develop special groups of men and women, as physicians and nurses, but the fundamental aim will ever be service to society, and all effort must justify itself in this light. Personal benefit to the individuals or groups is not to be considered except as contributory." If what Doctor Warner says is true, and I am inclined to agree with him, I believe that no hospital alone, can give the best nursing education. To put the whole burden of the education of the nurse upon the hospital is as illogical as to expect the hospital to give a complete medical education. The hospital has a very large contribution to make to the education of the nurse in furnishing the field for her practical work in the care of the sick, and it needs to be shown how that contribution can best be made in the future, and where it has failed in the past. We must get away from the idea that has so long prevailed, and still prevails, that, in giving a woman a chance to nurse sick people in a hospital, to keep the hospital clean, and to attend a few lectures given in the evening, or late afternoon, the hospital is giving that woman an education in nursing. It is not only not giving an education, it is literally stealing three of the best years of a young woman's life, using her strength and enthusiasm to save money, and sending her out, thinking she is well trained, to impose upon a trusting public. Few of us ever stop to think of the amount of time in actual hours that is exacted of our student nurses, and what it would cost in money to replace them with graduates.

The fundamental scientific course I have spoken of can only be given in well equipped laboratories, by trained teachers, to fresh, rested students who have time to study. We rarely find these conditions in a hospital; where then can this course be got? We must have schools that will give such part of the nurse's education as the hospitals can not give. We must use existing educational institutions wherever there are such institutions, providing schools, as other educational institutions are provided, where such schools do not exist. The social training in many schools will have to be got through affiliation. Specialization may be provided by the hospital in some cases, in others it would have to be sought outside, as in some forms of public health work.

Hospitals and Nursing Education

What then is the function of the hospital in the education of the nurse? (1) To provide for nursing schools a field for the careful training of their students in the actual care of the sick in its own wards, and an affiliation for the services it lacks. (2) To pay a carefully selected staff of competent nurse instructors and supervisors to conduct this practical training. (3) To secure a staff of medical teachers, paid to give well prepared, well organized courses of instruction in the subjects re-

*Read at the Twenty-first Annual Convention of the American Hospital Association, Cincinnati, Ohio, Sept. 8-12, 1919.

quired. (4) To enter large enough classes of nurses to make it possible for the patients to have proper care, and yet allow the nurses to have such hours of duty as will leave them time for study and recreation. (5) To provide living conditions that will insure to these students the comfort considered necessary for students in other schools and colleges. When the hospital has provided these things it has made a large contribution to nursing education and fulfilled its function. These things provided by the hospital will mean the expenditure of large amounts of money. However, if the nursing service rendered by a training school is of value to the hospital (and I venture to assert, without fear of contradiction, that the modern hospital would be impossible without it) surely it is as important to secure money for its maintenance as for any other department of the institution.

Money must be provided for a larger force of maids and orderlies, in order that much of this work which has no educational value for the nurse may be eliminated. It must also be provided for the payment of adequate teaching and supervision, for housing and maintenance for larger numbers of students, for libraries, for class rooms and teaching equipment, and for affiliations.

Sound Educational Standards Necessary

I believe that nothing will more surely attract students to our schools of nursing than the establishing of sound educational standards in these schools. You will find, I am sure, that the schools of nursing in this country that have as many students as they need, some even with waiting lists, are the schools that are making the most earnest efforts to give a real nursing education to the women who come to them. The prospective student is very much alive today to what she has a right to expect and demand in the way of education, and the thinking woman will not enter the school that neither makes educational requirements for admission, nor gives an education after admission.

Let us realize that in the past we have been too willing to demand as much as we dared and to give as little as we could, and resolve in the future to continue to demand much, but to give much in return.

AMERICAN NURSES DIRECT BOHEMIAN TRAINING SCHOOL

A training school for nurses is to be established in Prague, the capital of Bohemia, by joint action of the American Red Cross and the Czecho-Slovak government. Miss Marion Parsons of Canton, Mass., formerly chief nurse of General Hospital No. 22 of the British Expeditionary Force, and Miss Alotta M. Lentell, who served with the American Red Cross at La Panne, Belgium, have been assigned to the work of developing the school.

During the three years that these two nurses remain in Prague, two young women from Bohemia will come to be trained in an American school, so that they may be fitted on their return to carry on the work initiated by the Americans. The Massachusetts General Hospital, of Boston, has agreed to accept these pupils, whose expenses will be met for the present by the Red Cross.

This school at Prague, at the suggestion of Dr. Alice Masaryk, daughter of the President of Czecho-Slovakia, is the contribution of the Red Cross toward helping that country help itself. The most serious result of four years of war is probably the lack of medical and nursing personnel in the countries of Eastern Europe. Typhus and the war have thinned the ranks of the doctors, and with public opinion checking the development of the nursing profession, there are few native nurses who have attained the high standard of English and American nurses. The Red Cross believes that such a school will be a big factor in making secure the benefits arising from its endeavors.

PROGRESS OF NURSING IN UNITED STATES PUBLIC HEALTH SERVICE

By LUCY MINNIGERODE, Superintendent, Nurse Corps, United States Public Health Service.

Since the enactment of the Act of March 3, by which the United States Public Health Service was authorized to care for discharged and disabled soldiers, sailors, and marines, as well as other patients eligible for care or treatment by the Government, the work of opening hospitals and placing medical and nursing personnel has gone steadily forward.

The old marine hospitals have been extended and enlarged to care for some of these patients, and other hospitals have been acquired by the Public Health Service, until there are now forty-one in active operation, with a bed capacity of nearly 12,000, a nursing personnel of about 500, and a medical personnel of 266. Other hospitals are under consideration and will be opened from time to time. In each hospital, as it is opened, a skeleton organization of nurses, consisting of chief nurse and four or five nurses and a dietitian, is placed on duty. The nursing force is increased as the number of patients increases until the full quota of nurses has been placed on duty. The hospitals range in bed capacity from 40 to 1,500 beds, and the minimum quota of nurses per patient is one to ten, with the exception of those hospitals for neuro-psychiatrics where one nurse to five patients may be found necessary.

This is essentially pioneer work and there are many difficulties (such as are invariably found in any new field) with which the personnel has to contend, but which should sink into insignificance in the minds of the members of the service when the tremendous scope of this work is realized. While the nursing work of the army and navy is now returning to a peace basis, though materially increased over the pre-war establishment, this service is in its infancy so far as the nursing service is concerned. For some years past, nurses have been on duty in the hospitals at the immigration station at Ellis Island, in various quarantine stations, and in the Pellagra Hospital at Spartansburg, S. C. With the establishment of the big munitions factory at Nitro, W. V., the Public Health Service organized a base hospital for the care of the employees of this plant. About 100 nurses were assigned to this hospital. The Public Health Service was also placed in charge of the work in the extra cantonment zones surrounding the various camps, and 217 nurses were employed to assist the medical officers in carrying out the measures designated by the Public Health Service for the protection of both the camp and the civilian community in the vicinity of the camps.

May Specialize in Mental Cases

With the signing of the armistice and the demobilizing of the army, the nurses both in the munitions plant, which of course has been closed, and in the extra cantonment zones, have been gradually released. Fifteen nurses are now employed in the base hospital at Nitro, the extra cantonment zones have been closed, and the nurses released on April 30, 1919, so that at the present time the number employed for field work is limited, and the great problem confronting the Public Health Service is the

proper establishment of the hospitals for the treatment of the patients of the Bureau of War Risk Insurance. Consequently, the nurses needed just now are for institutional work rather than field work. Those who have kept themselves informed on the subject will not be surprised to learn that a large proportion of these patients are tuberculous or mental patients. Both classes of patients are found in all stations and there are already established a number of hospitals for the treatment of tuberculous patients and five for mental patients, two of these five being for neuro-psychiatric or borderland cases. This will give an opportunity for nurses to specialize in the care of mental cases, and also enable the Public Health Service to place the nursing of mental cases among the highly specialized branches of nursing. It is hoped that many nurses will avail themselves of the opportunity thus given to become specialists along this line, and the service is prepared to offer experience in the care of mental cases from the neuro-psychiatric and borderland cases to the more advanced types of mental disease.

Nurses Appointed to Service, Not Locality

During the period of organization, certainly for the first six months of service, nurses are detailed to duty at hospitals in the vicinity of their homes. The first six months is a probationary period, and if the nurse gives satisfactory service during that time she may be accepted as a permanent member of the nurse corps. Nurses are appointed to the service, not to any locality or hospital. They are expected to accept service wherever needed and transfers in the best interests of the service. They will have opportunity for advancement in grade and for the development of specialization in certain forms of work, x-ray laboratory technique, public health, anesthesia, psychiatric nursing, but the only type of nurse who will make good in this service or who will care to remain in the permanent service is the one who is willing to give her best, to stick through all manner of discouragement and who has the vision to see the possibilities ahead of her. It is not the place for those seeking light work, short hours, ease and comfort, or lack of responsibility, but in its ultimate accomplishments will more than repay those who have the character and foresight to realize its advantages and the determination to remain in the service through every discouragement. As yet there are no established regulations for the nursing service, but these are in process of preparation and it is hoped will soon be ready for distribution.

While the present most important work of the Public Health Service is the proper conduct and establishment of the hospital, there will later be opportunities for nurses in all branches of field nursing in clinics and quarantine stations, both at home and abroad, as it is the purpose of the service to employ nurses in all its various sections. At the present time there are no stations where nurses are employed outside of the limits of the United States, though it is quite possible that later there will be opportunities to place nurses in foreign service. This, however, will always be for a limited number of nurses. The field for nurses is large and presents many opportunities for those who have the ability to grasp them.

Must Qualify Under Civil Service

Nurses are selected through the Department of Nursing of the American Red Cross and if appointed permanently to the service must qualify under the Civil Service Commission. They receive at present a base pay of $720 a year, with quarters, subsistence and laundry, and are entitled, after the first month of service, to the Congressional bonus of $240 a year upon the recommendation of the medical officer in charge. While this gives the nurses in the Public Health Service an advance in salary over the nurses of the army and navy nurse corps, it is considered that the character of the work, living conditions in certain stations, longer hours on duty, and general organization work, together with the increased cost of living and the knowledge that while during the war nurses were content to work for smaller salaries as special war service and that in other fields of nursing work they could receive greater remuneration, make it advisable that an advance in salary for the Public Health Service should be continued so that there would be some offset to the disadvantages under which the nurses work at the present time.

It is the purpose of the Public Health Service to establish a permanent nursing organization, the nurses to be selected from among those who have already entered the service and who desire to remain. These nurses permanently appointed must qualify under the Civil Service Commission, and it is recommended that all nurses now in the service and desiring to remain make application for Civil Service certification at the earliest opportunity.

Opportunities for Dietitians

Dietitians are being assigned to the Public Health Service Hospitals as the need for them arises. At this time there are twenty-three on duty at the various stations, many of them having had military experience both in this country and overseas. They are all highly trained young women representing nearly every school of home economics in the country, and their work will be observed with much interest. It is a big field and has many opportunities.

The Hospital Division is organizing a section of physical reconstruction and it is contemplated that both occupational therapy and physiotherapy in all their branches will be extensively developed. It is the intention to continue the work of the army along these lines, and every effort will be made to secure trained women of unusual ability for this service. Applicants must have thorough general education. Normal school and college graduates are preferred, or the equivalent in technical training along their special line of work. In all appointments and promotions preference is given to applications showing superior qualifications with professional, business, or army experience. Aides will be under the direction of the reconstruction officer when on duty, but in matters of discipline when off duty, they will be under the supervision of the chief nurse. Because of the splendid work of the aides during the war, occupational therapy and physiotherapy are now accepted factors in the care of convalescent patients, and the future holds great opportunities for women trained in both these lines.

AMERICAN NURSE HONORED BY RED CROSS

Miss Alice Fitzgerald, the "Cavell Memorial Nurse," has been appointed chief nurse of the League of Red Cross Societies. At present she is chief nurse of the American Red Cross Commission for Europe. In March, 1916, Miss Fitzgerald was sent overseas by a group of prominent Bostonians as an Edith Cavell Memorial Nurse with the British Expeditionary Forces. She has been honored by two governments. She was decorated by Italy for distinguished services in that country, and in June, 1919, King George conferred on her the British Royal Red Cross at Buckingham Palace, for her services with the British Expeditionary Forces.

DIETETICS AND INSTITUTIONAL FOOD SERVICE

Conducted by LULU GRAVES,
Home Economics Bldg., Cornell University, Ithaca, N. Y.

FOOD CLINIC OF BOSTON DISPENSARY MEETS EVERYDAY NEED

By BERTHA WOOD, Dietitian, Boston Dispensary, Boston, Mass.

The first diet served by Eve to Adam was the beginning of a continuous series of troubles in the world and from that time people have gone on eating forbidden fruit, eating from instinct and eating without reason. Nature cheerfully furnished the diets for the peoples in the early days, but as time has gone on we have laboriously made them more and more artificial. Foods are refined and preserved and served in and out of season, making it more and more difficult to know when and what to eat.

Two years ago a study was made to learn the food facts in the homes of patients coming to the Boston Dispensary. The result showed inadequate incomes, too little milk for the children, too much meat in proportion to the income, and lack of knowledge in buying and preparing food. This demonstrated the need of having a dietitian to consult and a place in which she could demonstrate to the patients the preparation of food. The study resulted in the establishment of a food clinic by the Boston Dispensary for the purpose of providing assistance in the medical care of patients through the services of a dietitian and the use of a demonstration room.

The food clinic occupies a room twenty feet square. Its furnishings include a gas range, a sink with hot and cold water, a combination china and supply closet, a work table, a garbage can, two kitchen chairs, and two stools, all of which are finished in white enamel. At the extreme end of the room are an office desk and chair, and a small bookcase. Opposite this, against the wall, are scales for weighing and measuring patients.

Physicians Refer Patients to Dietitian

Patients are received at the food clinic only when they are under the care of one of the medical, surgical, or special clinics of the dispensary. The dietitian receives a diagnosis from the physician who refers the case and, occasionally, instructions as to diet. Sometimes the diagnosis is unusually interesting, for example, "No teeth; will you please lay out a palatable, digestible diet for patient?", or "Excessive appetite; symptoms of myocarditis." Cases are referred from the medical, nerve, children's, skin, eye, orthopedic, and surgical clinics.

When the dietitian and patient meet for the first time, the dietitian looks less formidable in a kitchen apron than if she wore a clinic gown or uniform. The latter is more in keeping with the dispensary, but not so "homey" to the patient. Food being a very "homey" subject needs to be undisguised.

The word "nutrition" is quite unknown to most patients, and "diet," if it means anything to them, usually means what *not* to eat. The word "food" they all know. Men and women, boys and girls, of all nationalities learn that word early in life, or on arriving in this country: so the first approach to the patients is made in this familiar way, and they talk to the dietitian about a thing of which they know the meaning.

When drugs are prescribed by a physician they are positive. Their diets are frequently negative, such as "no meats," "don't eat spices," or "cut out all sweets." The food clinic prescribes a positive diet and writes out a daily menu for the patient.

Nationality Determines Foods Prescribed

This past winter each patient has had prescribed foods of his own nationality. This has been an experiment carried on in connection with a study of the diets of the foreign-born families in relation to health. Recipes were obtained and the prescribing to patients of their own national foods has brought such good results that this method will be continued. An interesting example is that of a Ukranian woman whose husband had been sent to a tuberculosis state hospital. She and the three children were predisposed tuberculosis cases and were receiving state help in the form of "Mother's Aid." The woman had been making "soup" and throwing away the meat. When asked why she did not make "piroski," she said, "You know my foods; I only been in this country three years but you my sister." From that day on she was willing to cooperate.

One day an Armenian storekeeper, who had been very generous and helpful in explaining the use of the raw materials he had for sale, and also in giving information concerning home-country ways of using them, came into the clinic bringing a fellow countryman. He said the man was a cook in an Armenian restaurant over his store and that he had pain in his stomach. He had told him, "I know a woman, she knows everything. I take you to her. She knows our foods, what you shall eat and what you shall not."

Recently an Italian with jaundice was referred to the clinic. He was much surprised to find that oil and lard are fats. But his surprise in this was no greater than his delight in learning how to poach an egg and in tasting greens seasoned with salt, pepper, and a little vinegar. His testimony was, "I eat him that way all the time, him cheaper."

A Syrian woman with tubercular glands had been under the care of dispensaries at different times for three years and did not improve. When asked about the amount of milk she was using, she said she did not use milk. When questioned why, she said the doctor had ordered milk but the milk she could buy cost sixteen cents a bottle compared with three cents in her own country. She did

not know what was in the bottle besides the milk to make it cost so much, and the doctor had ordered only milk. An attempt was made to explain the high cost of milk in this country, and now the patient is using milk regularly in her diet.

The confidence of all the patients is not so easily gained, and follow-up work in the homes is necessary. This is carried on by volunteer students. The senior students in home economics from Simmons College receive credits for field work done in connection with the food clinic. They visit in the homes of patients when more than the time that can be given at the food clinic is necessary to establish a right dietary, and report at the clinic each week.

If a patient is a social service case, the social worker often comes with her to learn how the need is to be met. The social worker's cooperation is invaluable. Knowing what a patient needs is one thing, but seeing that she has it is more than half the battle with dispensary cases, and the social worker looks after that.

The social workers secure budgets for patients at the food clinic, and these are often used in cooperation with relief societies in furnishing sufficient incomes to secure the right diet. During the past winter a course of talks on diets and budgets was given once a month to the social workers.

The social worker places in her social record what has been prescribed by the food clinic, while the food clinic adds its record of the case to the medical record. This furnishes a complete history of the work done by the food clinic to both the physician and the social worker. The under-nourished children from eight to twelve years are admitted into group classes called "Learn to Eat Classes." A class for boys meets at nine o'clock on Saturday mornings and a class for girls at ten-thirty. When first referred to the clinic, each is given a small book entitled "What I Eat," in which there are seven pages, each headed by a day of the week, each page divided into three parts. In this book they are asked to write down what they have at each meal and how much. If they eat between meals that is added at the bottom of the page. No instruction as to diet is given at this time. The next week they return the book at the time they enter the class.

The children are weighed and measured each week. They cook two essential foods; one they eat at the clinic, the other they take home. This introduces it into the family dietary. The food eaten at the clinic is usually something that a mother has said her child would not eat.

It is planned to do group work this next year with adult patients. Team work can be done with them in relation to establishing right food habits as well as along other lines.

The clinic does some educational work in the dispensary outside the food clinic in the way of exhibits placed in cases on the second and third floors. Patients often have to wait for hours and these exhibits furnish food for thought. Posters in color are used, also. These are prepared by student dietitians who are observing at the clinic. A food clinic has many possibilities that it will take more than the year and a half that this food clinic has been in existence to demonstrate. A food clinic can always be made a success for it meets an everyday need in every life.

Surveys conducted by the New York Association for Improving the Condition of the Poor analyzed by John C. Gebhart and reported in the *Proceedings* of the 1919 meeting of the National Conference of Social Work go to show that a long period of economic insufficiency has the effect not only of reducing the food supply, but in establishing food habits and hygienic standards which themselves militate against the nutrition of growing children. Even if it were possible to assure a competency to every workingman's family a great amount of work would still need to be done in the caring for physical defects and in inculcating an elementary knowledge of food values among the various groups of the population. The task of improving the economic conditions of all our workers and of combatting the ignorance and apathy which now handicaps them, must go hand in hand. The greater task, that of raising the economic standards, will in all probability not be accomplished for many years.

WHAT WE HAVE LEARNED IN DIETETICS FROM THE ARMY

By JOHN R. MURLIN, Ph.D., Sc.D., Director, Department of Vital Economics, University of Rochester; Late Director, Division of Food and Nutrition, Medical Department, U. S. Army

The Division of Food and Nutrition in the Medical Department of the Army was formed for the purpose of safeguarding the nutrition of the soldiers. In every previous war, the army has been subjected to some form of nutritional privation. In the Revolutionary War, there was not enough food to go around. In the war of 1812, the army was plagued with a contractor system for supplying the provisions, which placed a great premium on dishonesty. As a consequence, the army suffered greatly from want of food, and, because of ignorance of dietetics, or, more properly, the science of nutrition, the food which it did get was not varied enough or fresh enough to insure good health. Scurvy was very common. Calhoun, as secretary of war, adopting the suggestions of the first surgeon general, corrected these defects to a large extent in 1818.

In the Mexican War, the army was able to live largely upon the country in which it was operating, and the abundance of fruit and wine prevented scurvy; but the sanitary care of foods, as well as of the camps in general, was very poor and much dysentery resulted.

In the Civil War, the Medical Department for the first time was charged with a share of the responsibility for the proper feeding of troops. But this authority was not conferred until 1863. Previous to that time, especially in the Peninsular Campaign, there was much scurvy and other sickness, resulting from improper food. Surgeon John Letterman, medical director of the Army of the Potomac, upon his appointment immediately took measures to correct the deficiencies of the ration. He was one of the greatest sanitarians the army ever had and ranks with Lovell, the first surgeon general, and our own beloved General Gorgas.

Need of Adequate Inspection of Foods

Finally, the Spanish-American War, which brought General Gorgas his opportunity to study the transmission of disease by mosquitoes, was characterized, as many of us remember well, by the "embalmed beef" scandal. Looking back upon the tiny little war of '98, we see now what a tempest in a tea pot it was. There really were few cases of serious poisoning by improperly processed canned meats; but in all probability the so-called canned "roast" beef, used in the travel ration as a substitute for canned corned beef, was responsible for much diarrhea and consequently contributed to the lack of resistance to typhoid which was the real curse of that war. The chief difficulty lay in sending to the semi-tropical climate of

Florida and Cuba canned stuff which had been processed for northern climates. Much of the meat spoiled and smelled badly and made a pestilential scandal for itself and for that part of the press which loves to handle putrescent news. What was really learned by this unpleasant experience in 1898 was the need of adequate inspection of foods, not only when they are purchased by the Supply Department, but also at the mess before they are used by the cook.

To avoid the mistakes of the Spanish-American War, as well as of the Civil War—to go no further back—General Gorgas organized in his department this Division of Food and Nutrition, which should make frequent inspections of food conditions in the camps and in the field, should seek to improve the cooking and serving of the food, and should study constantly the suitability of the ration.

Facts Learned about Army Dietetics

What we have learned about army dietetics may be summarized briefly as follows:

(1) We know now for the first time, not only the average requirement of food by the soldier in training, but also the range of this requirement.

(2) We know about how much the soldier eats outside the mess, and which he will eat no matter how good the mess may be.

(3) The average daily consumption of each food so that an average dietary or ration built upon exact information can now be written.

(4) The average composition of the food actually eaten in the mess.

(5) The variation in food consumption in different seasons of the year.

(6) The surprising variations in food consumption in different company messes of the same regiment doing identically the same physical work, the variation depending, apparently, upon the psychology of the mess, rather than upon the physiology thereof. Likewise, a surprising variation in the amount consumed by the same company from week to week, the external factors, such as temperature and work, remaining essentially the same.

(7) The average consumption by different classes of patients in the army hospitals.

(8) The preponderance of acid ash in the ration, as prescribed and as actually eaten, with the accompanying danger in combination with excessive muscular fatigue, of an accumulative acidosis.

(9) The surprising fact that a corrective diet prescribed by the hospital surgeon has nearly always a basic ash.

(10) And, finally, a possible relationship between diet and susceptibility to infection, which must be studied further.

American Army Ration Liberal

The garrison ration of the army in force when this war began was an excessive one. The basal portion of it, eighteen ounces of bread and twenty ounces of beef, dates from 1794 when the only other component with energy value was whiskey. In 1818, one-half pint of beans was added and whiskey was changed to molasses for making spruce beer. In 1832, liquors were eliminated entirely and coffee and sugar was substituted. In 1861, a pound of potatoes was added and beans were reduced. In 1898, tomatoes were added—none of the other components being reduced; in 1901, prunes; in 1908, jam, evaporated milk, butter, and lard. I have not mentioned the seasoning materials, salt, pepper, and extracts. Salt and vinegar have been present from the beginning; pepper has been used since 1864, and extracts were introduced in 1908.

It should not be understood that the soldier in the late war has eaten all of this, although like a good sport he has tried. The ration is, and should be, liberal, partly to offset excusable inefficiency in hasty mobilization and unavoidable wastes. You cannot make cooks over night, especially out of male Americans. The school for bakers and cooks in the army has succeeded in making them, and some very good ones, too, in two months.

But no man can eat the entire American army ration day in and day out. The average amount of meat of all kinds actually eaten in the training camps in this country was 13.5 ounces instead of 20 ounces as provided by the ration; 7 ounces of bread instead of 18; 13 ounces of potatoes instead of 16. But with free choice of foods, such as they had in the camps, the average soldier ate more beans, more fruit, more milk, more butter, drank more coffee and seasoned it with more sugar than the ration prescribes. Therefore, the ration should be revised in these directions. This could have been done a year and a half ago with a saving of three cents a day for each soldier—amounting in a very short time to an enormous sum of money for an army of 4,000,000 men. Instead of revising the ration, however, the General Staff saw fit to withdraw the privilege of "savings," as it was called, by which whatever remained of the money allowance to which the organization was entitled, was paid in money and could be spent for such extra things as the mess sergeant might select; and now requires all purchases to be made by the quartermaster upon requisition. This has worked a considerable hardship upon the hospitals, for it has made more difficult the selection of suitable foods for particular cases.

Notwithstanding some abuses of the savings system, however, the ration system in vogue, under close inspection and supervision, has worked well—much better than in any previous war. The men have, except in very emergent circumstances exigent upon their military duties, always had enough to eat and of such quality that no cases of deficiency disease have been reported and, with almost negligible exception, no cases of other disease in any way traceable to the food.

MILK THE MOST PERFECT FOOD

"Milk is the most perfect food we have and, even at present prices, is one of the cheapest," says Milton J. Rosenau, professor of preventive medicine and hygiene, Harvard University, in *All About Milk*, a pamphlet distributed by the Metropolitan Life Insurance Company. The vigor and success of a nation depend largely upon the amount of milk it uses. A glass of milk contains all the important ingredients that make up a mixed diet. One can get the same nourishment from milk as can be had from a meal made up of meat and eggs, sugar and cereals, oils and fats, with salt and water. One quart of milk costing from twelve to fourteen cents is equal in fuel value to eight eggs, costing from fifty to seventy-five cents. One ordinary glass of milk is equal in fuel value to one large serving of lean meat, two moderate size potatoes, or two slices of bread. It repairs waste, helps growth, builds flesh and bone. Children need lime for growing bones and teeth, and milk contains a great deal of this vital substance. The amount of lime in one cup of milk is equal to the quantity in a half cup of carrots, one egg, or two slices of bread.

Cow's milk is good, but it is not the best food for infants. They should have breast milk. Milk was never

intended to see the light of day, and the breast-fed baby is in no danger from partly decomposed milk containing dirt and germs. Ten bottle-fed babies die to one breast-fed baby.

No modification of cow's milk can make it take the place of mother's milk. By diluting it and adding sugar it may be made to resemble mother's milk, but it is never just as good. If cow's milk is not diluted, the baby is placed in the position of a person living upon a rich meat diet.

Milk may be dried just as fruits are dried, and dried milk is just as nourishing for family use as fluid milk. The dangers of milk lie in the ease with which it may become contaminated and convey the germs of disease.

CAFETERIA MEETS HOSPITAL NEED

By ELEANOR WELLS, Teacher's College, New York City*

The cafeteria in itself is by no means new, nor in the hospital is it unheard of, but, perhaps, in this type of institution more than in any other, it is a novelty. This may be due partially to a conservative feeling in regard to making radical changes, and largely to the thought that nurses, standing on their feet all day, should have an opportunity to sit down at meals and be waited on. I own to being on the conservative side in this respect. The hospital is the pupil nurse's home for three years and the idea of standing for one's meals during that entire period is appalling.

With the increasing difficulty of procuring satisfactory waitress service, however, the question of the cafeteria looms up again and again. With this fact facing us, a report on conditions in institutions where the cafeteria has been in successful operation, is worthy of note. In a study of nine hospitals in the East and Middle West, the fundamental facts in each case are identical, namely:

1. The cafeteria form of service was introduced as a necessity to meet the "help" problem.
2. The food waste has been materially cut down.
3. The payroll has been reduced.
4. The nurses are satisfied with this form of service, preferring it to the other. The food is served hotter and more attractively. Service is quicker. They do not care to return to the former plan.

To my mind, this last point is the strongest argument. The success of an institution depends largely upon the happy cooperation of its entire household. If not from a humane, then from a business point of view, it is essential to give as much satisfaction to employees as is expected in return.

The expense of installation of such a form of service has differed materially with each institution, varying from the cost of trays to a new equipment, approximating $2,500. In two instances, there has been no new expense.

The nurses in the Woman's Hospital, New York, file in through the serving room, pass the steam table, taking their plates with them as they go. The bread, butter, milk, dessert, and so on, have already been placed on the table by the few waitresses retained for the care of the dining room.

At the Brooklyn Hospital, the nurses pass a table placed in the doorway of the serving pantry, taking their plates in the same way. The three waitresses retained out of seven, serve the desserts, set up and clear the tables, and take general care of the dining room. In neither case are trays employed.

In the Massachusetts General Hospital, Boston, the cafeteria form of service was introduced for the first two meals of the day, waitress service being employed for dinner; but by a vote of the nurses, waitress service was dispensed with altogether, and the cafeteria was used throughout. The expense of the change included the moving of the steam table to a more convenient location, the building of a counter, tray racks, shelves for dishes, and the cutting of a window through to the dining room. The steamfitters' bill approximated $40 and the carpenters' in the neighborhood of $35. In addition, there was the purchase of aluminum trays at $1.75 each. These are pre-war prices. To offset the expense involved in this installation, the management has reduced its yearly payroll, approximately $3,200, and there has been a 20 per cent cut in food waste.

In the private pavilion of this same institution, a cafeteria has been installed for breakfast and luncheon. Waitress service is employed for dinner. The nurses enter a double swinging door from the dining room to the serving room. One door swings in, the other out, which does away with all danger of collision. Just inside the doorway, each nurse procures her napkin from a pigeonhole box, takes her tray, and goes to the serving counter. A menu board with block letters suspended over the counter gives the two menus for the day. No choice is given. The plan is merely to facilitate progress. One maid is stationed to serve all cold dishes, which with the silver are at the first end of the counter. A second stands guard over the steam table and hot dishes. A third supplies desserts, and a fourth the coffee and tea. The nurse approaches each one by way of the counter in the order given and goes thence to the dining room. After eating, she returns her tray to the soiled tray rack, just beyond the fresh tray rack in the serving room and replaces her napkin in the box. A maid in charge of scraping, clears each tray on the scraping table close at hand. The dishwasher stacks the dishes in the rack for the electrical washing machine. A woman at the other end of the dishwasher wipes the dishes and puts them on the shelves immediately behind. Few steps are wasted in this process.

In order that there may be no waiting in line, the nurses on each floor are dismissed for meals at five-minute intervals. The nurses from the eighth floor arrive first; five minutes later, those from the seventh floor arrive, and so on. In the meantime, the food trucks for the patients are sent to the first floor, first, the nurses serving the trays before coming to the dining room. The eighth floor nurses, who have lunched, return to their floor in time to receive the meals just arrived for their patients.

In the waitress service used at night, the four maids behind the counter go into the dining room. They are supplemented by two part-time women who come in from five to seven at twenty-five cents an hour. This makes six waitresses in all. The night cook, who prepares the midnight supper, arrives in time to stand behind the steam table and serve the evening meal.

In the Bellevue Hospital, New York, the cafeteria service is somewhat similar. The nurses do not return their dishes, however. The latter are cleared by maids later. The saving in expense at this hospital is six waitresses.

I have touched only on the question of feeding nurses in this report. Three New York hospitals report favorably on feeding the employees cafeteria style. The Woman's Hospital in Baltimore has a successful cafeteria for staff and office force as well.

In planning a cafeteria for an institution already fitted

*Read at the Second Annual Convention of the American Dietetic Association, Cincinnati, Sept. 8-11.

out for waitress service, no hard and fast rule can be made. A study of the problem is necessary, and the best plan possible should be adapted to the individual case. It is for this reason that I am explaining the various methods already in operation, as suggestions.

In installing a cafeteria in a new building, the outfit should consist of a serving room, with three tables in a row, in the center of the room. The first should be the cold table, where all the desserts, salads, bread and butter are to be served. On this table the bread cutter, and sanitary butter cutter may be affixed. A lower shelf may be employed for reserve dishes. Directly behind the cold table, the refrigerator should stand, if possible, backed up against the refrigerating plant in the kitchen. It should contain a compartment large enough to hold a butter tub, with a rack above for a tray of cut butter.

The steam table, preferably with nickel top, should be the second in line, with a lower compartment for keeping the dishes hot. A door back of it should open directly into the kitchen, allowing quick conveyance of food.

The third and last table should hold the milk, tea, and coffee urns, the two last named of nickel manufacture. If placed over a small steam compartment, it will be possible to keep the cups hot.

In front, there should be a serving counter, extending the length of the serving tables, with a lower tier for reserve cold dishes. The counter top should be of some solid material, such as marble, steel, enamel, or hardwood. A double counter rail of heavy metal, facilitating the passage of the tray, should be attached directly in front of, and a little below the serving counter. The nurses should approach by way of the cold table, first taking their trays, preferably aluminum, their napkins from a pigeon-hole box just above, and their silver from the cold counter. Water may be placed on the table in pitchers, or stationed in water coolers around the room.

Under no conditions, should the cafeteria installation be in the dining room itself. Economic argument may be for it. But the esthetic point of view is strongly against it. The success of the cafeteria rests, aside from the speed with which the food is served and its temperature, on its attractive assets. Especially is this essential to rushed and tired people. The appetite of anyone would fail, from continuously eating off a tray, in the glare of giant urns and steam table, in the rush of steam from the dish washer, and amid the clatter of dishes. For this reason I commend an attractive dining room out of sight of the serving room. The nurse should remove her dishes to the dining table from her tray and place the latter on a side table. I approve the use of the bus boy, and of the maid for clearing the dishes to a separate scullery room. It may mean a few more added to the payroll, but it will help to insure a happier household, without which no institution is a success.

NEWS NOTES OF DIETITIANS

Miss Hazel Chambers recently finished the course of training given for student dietitians at Michael Reese Hospital, Chicago, and has accepted the position of assistant dietitian in the same hospital.

Miss Marguerite Bennett, who was in charge of the only Dietitian's Unit which was sent overseas has accepted the appointment of Head Dietitian at the Western Pennsylvania Hospital, Pittsburgh. Previous to this time, the Western Pennsylvania Hospital has not had a dietitian supervising the entire dietary department.

Miss Mary L. Shaw has been made Assistant Dietitian at the Albany Hospital, Albany, N. Y. Miss Shaw completed the Student Dietitian training given at New Haven Hospital.

Miss Mildred Tabor resigned as dietitian of the John Sealey Hospital, Galveston, and was married recently in Cincinnati.

Miss Margaret Brown has given up her work at Crouse-Irving Hospital, Syracuse, and is going home to be with her mother for a time. Miss Brown's father died recently. Miss Aleda Launeman, a graduate of McDonald Institute, Guelph, Canada, is to be Miss Brown's successor at Crouse-Irving.

The Dietitians' Section of the H. E. A. of Philadelphia met at the Pennsylvania Hospital, Eighth and Spruce Streets, November 6. The subjects discussed were water, soaps, and soap-savers. Mr. E. M. Miller of the Suaeo Company addressed the meeting. An investigating and reporting committee on Social Service Dietitians was appointed by the Section.

Miss Gladwyn, Jefferson Hospital, was appointed to report to the Section at its regular monthly meetings current topics in the *Dietetic World*.—Inez Griffin, Sec.

One Way of Getting Allotment Money

Relieving the President of some of his minor responsibilities is work for the Red Cross Home Service in certain districts of the United States. In a Louisiana town several months ago a negro woman was anxious to obtain some money due her from the government. There was no Home Service worker in the town at that time, so she went to one of the prominent citizens and asked him how she could get her allotment money.

"Better go to Judge Norman, Mandy," he advised her. "Then let me know how you come out."

Mandy went away, and several days later she returned and flourished a government check for $120.

"Dis heah any good?" she inquired doubtfully.

"Certainly," her adviser told her. "It's a government check, you know, Mandy, and that's as good as gold. Did Judge Norman tell you how to get it?"

"No, suh. Ah didn't go to the Judge," answered Mandy, with satisfaction. "Ah wrote right to the President, and he got it foh me!"

American Mobile Hospital in Rumania

An American mobile hospital is being used in the Balkans for the treatment of Rumanians and Hungarians. The hospital was built by the Red Cross for use on the West front, but did not arrive in Europe until after the signing of the armistice. This type of hospital, says the *Boston Medical and Surgical Journal*, is known as the "auto-chair," and is carried on eighteen huge automobile trucks constructed for medical and surgical purposes during war time.

It consists of automobile operating rooms, sterilizing equipment, a laboratory, an x-ray car, a pure-water machine with an ice-making attachment, electric light plant, steam heating plant, a blacksmith's repair shop and a complete tent hospital which can be set up anywhere in about two hours, accommodating more than four hundred wounded men.

The hospital, which is under the command of Maj. J. B. Bayne of Chicago, has been given to Queen Marie of Rumania by the American Red Cross.

Dispensaries and Out-Patient Departments

Conducted by Michael M. Davis, Jr.
Director, Boston Dispensary, 25 Bennet St., Boston

THE HIGH COST OF LIVING IN RELATION TO DISPENSARY ADMISSIONS

The great and rapid changes in the cost of living and in standards of income during recent years have affected every household, and produced serious economic questions. Of the numberless examples of these effects, the dispensary is one. Not a little misunderstanding has arisen regarding the classes of patients eligible for admission to dispensaries because of failure to understand the degree and character of these changes in living costs. A statement at this time may be of some practical service to those concerned with the admission of patients to dispensaries.

Dispensaries which are conducted as charitable organizations feel it an obligation not to accept patients who are able to pay physicians in their private offices for the medical care which is required. To make such discrimination among applicants for treatment at a dispensary requires the services of a trained person at the dispensary admission desk. This admitting officer, who should be a person with social service training, must consider three factors regarding each applicant: (1) The income of the patient or family. The income should be figured on an annual basis as far as possible. (2) The size and current responsibilities of the family, in other words their probable cost and standard of living. (3) The cost of the particular kind of medical or surgical care that is probably required.

Some standards must be agreed upon if the admitting system of a dispensary is to work properly. A number of studies of the income necessary to maintain a family have been made—some before the war. At that time it had been generally agreed that in the large eastern cities of the United States a minimum income of between $900 and $1,000 a year was necessary to maintain the physical efficiency of the so-called typical family of man, wife, and three children. This meant an average weekly income of $18 to $20.

These figures are now completely out of date. It is fortunate that a number of very careful studies of family budgets were made during the war and that a very extensive investigation of this sort is now in process of completion, under the auspices of the United States Bureau of Labor Statistics. Their final report is not yet published, but sections have appeared, and from this and other sources we have an excellent basis of fact, more, indeed, than ever before.

The gist of these studies is that an income of $1,700 is necessary to provide a man, wife, and three children under fifteen years of age with the minimum necessities of food, housing, clothing, fuel, light, and miscellaneous necessities, during the course of a year. The cost of food for a family has almost doubled since 1914; clothing, furnishings, and most miscellaneous expenses have doubled or more than doubled.

Under miscellaneous necessities are included minimum allowances for the cost of medical care, based on the average amount of sickness. When, however, sickness is more than the average, as is very frequently the case among the families coming to dispensaries, this minimum allowance is not sufficient.

A few years ago a family of this size receiving an income of $30 to $35 a week would have been regarded as suitable for private medical care rather than dispensary treatment, unless the disease from which the patient was suffering was an unusually prolonged or expensive one. Yet at the present time an income of $30 to $35 a week means no more than $18 or $20 meant in 1910 or 1912.

An average income of $35 a week for this "so-called typical" family of five is a fair minimum. Since in many occupations employment is seasonal, wages higher than $35 per week must in many cases be received in order to attain this minimum. In admitting dispensary cases or in considering the eligibility of patients for admission, it is essential to have in mind this marked change in the cost of living or, what is the same thing, in the value of the dollar measured by purchasing power.

The detailed studies upon which the above statements are based are at hand in public documents, chiefly the recent numbers of the *Monthly Review* of the United States Bureau of Labor Statistics, Dr. Royal Meeker, commissioner, and in a recent article by Doctor Meeker on "What Is the American Standard of Living?" published in *Modern Medicine*.[1]

There is a prevalent impression that though prices have risen wages have advanced still more. Facts do not bear out this optimistic belief. The course of wages is more difficult to study than of prices, since wages vary so much in different occupations, and the number of occupations is large. The expression "average wages" means very little, for it is made up of a certain number of high paid trades and a certain number of very low paid ones. So far as any general statement can be made summarizing our knowledge of wages in relation to prices, it is as follows:

Wages have generally risen, but more slowly than prices. This lag in average wages really means that the wages of a certain number of occupations (a relatively small number) have risen proportionately more than prices, but, on the other hand, the wages of many occupations have risen much less rapidly than prices.

In other words many wage-earners are less well off today than they were before the war, despite higher

1. Meeker, Royal: What Is the American Standard of Living? Mod. Med., 1919, i, No. 3, 193.

money wages. This is true notwithstanding the fact that there are a few conspicuous examples in which wages have risen much more rapidly than prices. It is these conspicuous examples which have attracted most attention.

In admitting patients to dispensaries we do not need to consider how much wages have risen in relation to cost of living during recent years, but only what the wages and other income of the family may be at the present time in relation to the cost of living at the present time. The relation between wages and prices is mentioned in this memorandum, nevertheless, for the purpose of correcting the existing impression that there is much less need for dispensary service now than formerly.

At any time of rapid change in wages and prices it is naturally much more difficult to apply standards to individual cases, than it is during a more settled period. It is not easy to pass upon a large number of cases rapidly and accurately. The experience of dispensaries has shown that inquiry of the patient at the admission desk gets fairly reliable information regarding the family income and size of family, and that the extra time for a home visit is not usually necessary. Such a visit should be made only in those exceptional cases when a deliberate attempt to deceive or defraud is suspected.

It is particularly important for physicians working in a dispensary, as well as for the superintendent and members of the boards of trustees, to have in mind the great difference in cost of treating various diseases. Many individuals who could afford to pay for one or two visits to the office of a general practitioner for some minor ailment would be totally unable to pay for diagnosis and treatment of an obscure disease or a long continued chronic case, or to meet the expenses of a specialist, such as an oculist or an orthopedist, in his private office. Patients of certain types may, therefore, be properly admitted to an eye clinic, a throat clinic, or clinics for the treatment of syphilis or gonorrhea (long continued, expensive diseases) when they might be refused treatment or referred to a pay clinic, if they had a cut on their finger or a cold in the head.

It is essential that the persons responsible for the admitting of patients to a dispensary be conversant with the current facts of the cost of living and with the local conditions in the community. It is also important that all others working in the dispensary shall have a general appreciation of these same facts in order that misunderstanding may be avoided. Disputes regarding instances of so-called "dispensary abuse" usually clear up when treated with liberal doses of fact, applied as cold compresses upon all inflammatory spots of argument.

MAY PLACE STATE'S MENTAL CLINICS UNDER JOINT CONTROL

A joint committee on clinics for mental disease and mental defects was appointed at the State Hospitals' conference of New York on mental clinics and psychiatric social work held at Manhattan State Hospital, New York City, on October 23. The conference was called by the State Hospital Commission, and held under the auspices of the Psychiatric Institute and the Manhattan State Hospital.

This committee, as provided by the resolution adopted, will supersede the previous committee of representatives of seven different state departments, and will further the establishment and operation of joint clinics for mental disease. The committee consists of the following members: Everett S. Elwood, chairman, representing the State Hospital Commission; Dr. Pearce Bailey, secretary, representing the Commission for Mental Defectives; Dr. John A. Smith, secretary, representing the Department of Health; Dr. William B. Cornell, representing State Education Department; Charles H. Johnson, secretary, representing State Board of Charities; John F. Tremain, secretary, representing Commission of Prisons, and Charles L. Chute, secretary, representing Probation Commission.

At a meeting held in Syracuse, November 12, it was decided that these clinics should be held regularly rather than at irregular intervals. A pamphlet explaining the plans for operating joint clinics will be sent by the State Hospital Commission to the seven interested departments and organizations for distribution.

The State Hospitals' conference emphasized the importance of preventive work and the need of greater cooperation between the State hospital clinics and other agencies, both public and private.

URGES THAT DISPENSARY WORK BE A COMPULSORY SERVICE TO PHYSICIANS

An interesting angle is given by Emil Amberg, M.D., Detroit, Mich., to dispensary work, which he suggests might well be made a compulsory service to all physicians. "It would work out," he says, "to the benefit of the public and would afford the physician what would constitute practically a continuous post-graduate course."

Particular potency is given to his argument in a paper by Doctor Amberg published in the *Journal of the Michigan State Medical Society* of October, 1919, under the caption, "Some Present-Day Treatments of Ear Diseases in the Light of Medical History." Without belittling the progress which has been made in our time, this communication points out that in the treatment of ear suppuration, for instance, rest and the avoidance of fatigue were especially recommended, and some of the accepted procedures of the present-day were known and practised by Hippocrates. The fact is reiterated that not infrequently "observations have been made in times remote but have not become familiar to all physicians even now."

Herein lies one of the arguments for compulsory dispensary work for physicians. "Those who confine themselves particularly to otology and allied subjects should make it a point to aid in the dissemination and generalization of knowledge concerning their line of work. This, of course, applies to all other branches of medicine as well.

It seems evident to me that lack of centralization and cooperation, lack of system, and lack of method are standing in the way of still greater progress. In some places this fact has been acknowledged and recognized by the establishment of special hospitals, which are productive of good results by virtue of centralization. Let us hope that eventually such a plan will become more general.

I might add that I am in favor of special hospitals only in connection with general hospitals. It is not only necessary that one or the other individual physician be familiar with the facts, but it is essential from a humane, from a sociological, and an economic standpoint that all people should enjoy the benefit of medical knowledge accumulated in the course of the ages."

HEALTH AND MODERN INDUSTRY

Conducted by BARROW B. LYONS
15 Fort Washington Avenue, New York City

INDUSTRIAL SURGICAL SERVICE PLAN FOR NEW YORK'S WEST SIDE

By A. MONCRIEFF CARR, M.D., U. S. P. H. S., Philadelphia, Pa.

Problem in New York Unique

The Industrial Surgical Service on the West Side of New York City presents a problem not like that in any other city. Between 44th Street and the Battery there are only three general hospitals and three or four private dispensaries, one of which is that of an insurance company. Of the three hospitals, only one has an ambulance service, and one of the other two is used only for Government employees and marines.

This limited service covers an immense area of docks, wharves and manufactories; the employees of the docks and wharves alone have a yearly payroll of over $6,000,000, and this, at least, is equalled by that of the industries within the area mentioned.

The treatment at the hospitals is largely under the direction of the intern, whose judgment is that of the first year graduate; the treatment of the dispensaries is subject to the whim of the practitioner. The variable results from such a service can only be imagined but not estimated.

The solution of such a problem would be the organization and establishment of an industrial hospital with two or three outlying dispensaries or dressing stations. A hospital, centrally located, convenient to docks and wharves, and far enough down town to serve the industries with a selected personnel and adequate ambulance service, is urgently needed.

Difference Between Industrial and General Hospital

The industrial hospital should be different from the general hospital in equipment, purpose, principles, and personnel. The purpose should be threefold: The highest type of initial surgery, and the best possible hospital care, coupled with the principles of reconstruction and rehabilitation.

The principle of the hospital should be based on the welfare of the patient-employee, thereby rendering the desired service to employer and insurance company; in short, it means returning an injured man to his job in the quickest possible time, with the greatest amount of restored function and the smallest amount of discomfort to the individual.

The equipment of the hospital should be the best possible and entirely adequate, no department being neglected, but all cooperating for the early return of a man to his work.

During a recent survey of twenty New York hospitals by the Red Cross Institute for Cripples, it was found that at least 60 per cent of a man's chance of returning to his job depended on the initial surgery done. The equipment of the surgical department, therefore, should have first consideration. The importance of reconstruction, aside from surgery, in any plan for the rehabilitation of the wounded of industry, indicates a well equipped department for hydro- thermo- electro- and mechano-therapy.

The detail of such an organization cannot be worked out in this space, but the necessity for the modification of the ordinary hospital is appreciated by all those who realize the importance of special care for the injured of industry. To make complete the service of such an industrial area as above described, there should be established, where the need is greatest, two or three first-aid dressing stations; daily re-dressings could be applied here, and first-aid dressings for emergency cases preparatory to being sent to the central hospital.

Careful Selection of Personnel

The chief surgeon and his assistants. The selection of an industrial surgeon should depend on merit alone. Abstract lawyers do not plead in criminal courts; architects are not employed to work out problems in chemistry; obstetricians do not practice orthopedics, and the chief surgeon of an industrial hospital should be a specialist in industrial surgery with executive ability, adaptability, and capacity for administration. Such a man could be found among those who before the war were practising surgery, had experience in industrial work, and had seen active service at the Front. He should measure up in every way—in industrial experience, surgical experience, executive and administrative work; he should be socially minded; no man should be selected without careful investigation of his record in civilian and army practice based on final results secured.

The assistants to the chief surgeon should be selected as much because of their ability and willingness to cooperate as because of their training and experience.

The superintendent. No factor in the success of any hospital is more important than the superintendent; a man who has had experience and, if possible, special training in industrial hospital management, and who is in complete sympathy with the hospital policy. Cooperation with the staff is primary for the smooth running of the hospital.

The nurses. All the nurses should be graduates, if possible, with training in industrial establishments. They should be selected with the greatest care, because no aid in a man's return is so important, from entrance to hospital to his leaving, as nursing care. If attendants are used, they ought to be trained attendants and not probationers.

Ambulance service. The ambulance service of the majority, if not all, the general hospitals, is a disgrace,

as far as personnel is concerned. Well equipped and up-to-date motor ambulances and many of them are provided, but usually the drivers are men of little or no character, with no training in handling sick people. Competent drivers and ambulance attendants are a prerequisite.

Salaries. C. D. Selby, in a recent general review of the question of the salaries of industrial surgeons, states that no equitable standard has been reached. The surgeons in attendance at the above industrial hospital would be full time men and specialists in their line, and their services paid for accordingly. A competent surgeon who, in civilian practice, nets $15,000 yearly, should be paid at least an equal amount as a chief surgeon. Seven thousand five hundred is a reasonable amount for a first assistant, and proportionate amounts for other assistants, according to their experience.

The superintendent's salary as judged on the basis of other hospitals, should be about $6,000. Nurses with special experience should not receive less than $125 per month to start, automatically increased as worth is proved.

Only by adequate remuneration can the best talent be attracted and held; heretofore this has not been considered and the result has been poor work.

Standardization of Treatment Necessary

If there is only a partial success in the organization and carrying on of those establishments which have been doing industrial welfare work for years, how can it be expected that a detached medical and surgical service will give adequate and efficient service with no organization.

The treatment of industrial cases in many instances, as now carried on by the thousands of physicians appointed by insurance companies, not because of their ability and training in this work, but because of their convenience to industrial districts, is so varied and inefficient that a comparison with modern methods is hardly necessary. Even those insurance companies that have established small dispensaries cannot secure the services of men efficient and enthusiastic in their work, because of the small amount of work done and the salaries paid.

The arrangements made with general hospitals for the care of industrial cases do not answer the need because treatment is carried on largely by the inexperienced intern.

To illustrate how great a saving of time and money to all concerned, and an increase of satisfaction to the worker could be brought about, it is interesting to note the results obtained by standardizing the treatment of fractures and burns.

In the light of work done during the war at the Front and in the base hospitals in conjunction with the knowledge gained in civilian practice in this country, there should be some practical standardization of treatment elaborated, whereby cases could be returned to their work much sooner than is done by the innumerable methods now practiced. Not only should there be standardization, but an earnest effort made by surgeons and hospitals to keep accurate and detailed reports so that judgment may be passed on results obtained, and a more constant improvement looked for. (Of all fractures met with in industry, the most frequent are those of the extremities, the Colles and Potts, or modifications of these.)

In comparison of results in the treatment of these fractures by the variety of methods now in vogue, and those elaborated by the army surgeons modified by civilian practice in the last few years, it would seem that almost one-third of the total time of disability could be saved to the employee and employer, and thereby the cost of insurance could be cut down.

In the treatment of fractures alone the saving cannot be entirely estimated. For example: John Bright, foreman, longshoreman. Injury: Fracture around ankle, simple.

As now treated: Plaster cast for three to six weeks, in hospital. After removal of cast, occasional massage and radiant heat, two to four weeks. Crutches for six weeks. Result: Back on job, partially, four months after injury; good, moderate, bad.

With modern treatment: Proper splint until ready for plaster cast. Cast removed for massage and baking every four or five days, and periodic x-rays taken to show alignment and callous formation. At the end of two weeks, regular massage, baking and, if necessary, electrical massage for muscle tone and passive motion for joint. Crutches two to four weeks, during which massage and other treatment is continued with proper exercises and trial weight bearing daily until man is returned to his work. The patient should remain in the hospital until necessary treatment and observation is completed. Approximate time, two or three months: Result (measured precisely): Weight bearing and carrying, joint function, x-ray picture for alignment and callous, muscle function and atrophy.

In the case of burns: Two men, severely burned, second degree, on body and legs, by an explosion. One was treated in the "good" old fashioned way by boric ointment dressings daily for almost one hundred days, and suffered intense pain. The result was contractions of skin and hindrance of muscle function.

The other was given a routine wax treatment, eight dressings with no pain and no contractions. Patient was returned to work in nineteen days, skin as tender as a baby's.

The above comparisons are only ordinary and fairly typical among many that could be cited. Besides establishing standard methods in fracture and burn treatment, the same plan could be adopted for lacerations and infections.

In addition to hospital treatment there should be some consideration of vocational training which should be begun in convalescence, especially in the case of fractures.

Purposes Served by Industrial Hospital

The organization of an industrial hospital on New York's West Side should meet with approval of the manufacturers because they would be saved untold expense in insurance claims, and should see an increase in production; the employees because they would be receiving service worthy of the name (and it is the experience of those who have been working with the injured of industry that no service is too good from an employee's standpoint). The insurance companies would be saved a corresponding amount.

The field of endeavor along these lines could be enlarged to meet the demand, and bring about the establishment of departments for social welfare, community centers, visiting physicians and nurses, child welfare, recreation, and cooperative stores.

Physical examinations of applicants for all employments and the proper placing of men fitted for each job has been demanded in the last few years, and some establishments have already required it. In this way a large number of accidents due to unskilled labor turnover are prevented. Such a department could be added when the employers and insurance companies realize its great importance.

A complete, detailed plan for an industrial hospital and its equipment is in preparation, based on the unit system. It can be adapted to fit the special needs of any industrial community.

The plan as above outlined is merely to point out the need and suggest a practical way of meeting that need. Such questions as finances and management can be taken up when a decision is made to establish the hospital; let it be said, however, that the function of the board of managers and that of the staff should be clearly defined and kept entirely separate from the beginning.

The question to be kept in mind by the board of managers should be: How best can this system be financed without detriment to the service? While the staff should consider what is best for the patient.

INDUSTRIAL DISEASE FROM A NEW ANGLE

By ROYAL MEEKER, United States Commissioner of Labor Statistics*

There is no clear line of demarcation between industrial accident and industrial poisoning or disease. The loss of the use of a hand affects the health of the worker just as vitally whether his disability is caused by an exposed gear or by lead poisoning. The economic effects of disabilities are the same no matter how produced. It is most encouraging to learn that there is an increasing tendency to put industrial poisoning and sickness on the same footing as industrial accidents. Unquestionably illness due to unhealthful conditions in industry should be compensated in the same manner as disabilities due to so-called accidents.

In forty-one of the states of the Union the legislatures have given tardy and only half-hearted recognition to the principle that accidental injuries to workers in industry constitute a part of the cost of production in that industry just as damage to machinery, tools, and material is a part of the cost of production, regardless of the fault or negligence of either the employer or the employee. It has taken more than twenty years of the most strenuous battling to win even partial recognition for the principle of compensation as against the principle of liability for industrial accidents. Industrial illness, so far as industry can be held responsible for it, should come under the same compensation laws.

The extent to which industry is a contributing factor in sickness is almost unrecognized even by industrial physicians. In my opinion, the industrial hazard of ill health is vastly greater than the industrial hazard from accidents. It is much more difficult, however, to determine responsibility for illness because home conditions, bad food, bad housing, insufficient sleep, bad social conditions, infected water supply, and other conditions outside of the plant are contributing causes to the breakdown of health. Nevertheless, industries can not disclaim responsibility for illness because factors outside industry are contributing causes of ill health. The factory inspectors can perform a much-needed service by insisting that factories and workshops shall be lighted according to the best standards laid down in lighting codes and that industrial establishments shall be provided with sufficient toilet and washroom facilities and with proper locker rooms for street and work clothes, abundant, pure, and cooled drinking water, pure air free from dangerous and discomforting dust, smoke and fumes. The temperature and humidity have been demonstrated as having a most important effect upon the health and efficiency of workers. So far as these are within control they should be regulated so as to enable the workers to perform their tasks with the minimum amount of fatigue and loss of vitality.

I am convinced that by far the most important of all industrial diseases is fatigue. Of course not all fatigue is caused by work. The fatigue due to keeping late hours, dancing, drinking and carousing, however, is utterly negligible compared to the accumulated fatigue of hard, monotonous work in factory or store under bad conditions of light, ventilation, temperature, and humidity. It must also be borne in mind that workers are human beings and that amusement and relaxation are just as essential to men as are food and raiment. Most of the dissipation workers are accused of is the result of the monotonous fatiguing character of their daily work. The workers seek relief in the only form of amusement available to them.

The effects of fatigue are most insidious. Fatigue is cumulative and although a young vigorous man or woman may work long hours under unfavorable conditions for a long period without seemingly suffering any ill effects, in the end a settlement must be made. Most of the nervous disorders suffered by workers come from the employment. An unascertainable amount of disease not usually connected with industry at all is undoubtedly due to the accumulated fatigue of employment which has broken down the victim's power of resistance. I firmly believe that not less than one-half of all illness in the United States originates in and grows directly out of employment. Probably the contribution of industry to the ill health of the nation is much greater than one-half, but I wish to be conservative. The larger part of industrial fatigue is due to bad construction of plants and bad management. Most of it could be eliminated if employers assisted by society working through industrial physicians and labor departments and bureaus would set their minds to the task. Production would be greatly increased thereby and the benefits, social, political, and economic, would be incalculable.

Education in industrial hygiene is a matter mostly for employers. Every intelligent employer has competent machinists to look after the injuries of his machines. If a valuable, universal screw machine meets with a mishap, it is given a vacation, with pay, until the machine surgeon repairs the injury and the machine is fully rehabilitated. If an engine lathe contracts industrial fatigue, it is given a rest and thorough overhauling. The employer must be assisted to comprehend that his workmen deserve at least as humane treatment as his machines and mules. Both the public and employees, however, need a thorough seven-year college and university course in industrial hygiene in its relations to general health, efficiency in production, and national welfare.

*Excerpt from *Industrial Hazards*, an address given before the convention of the Association of Governmental Labor Officials of the United States and Canada, Madison, Wis., June 2-4, 1919.

SPECIAL SECTION FOR INDUSTRIAL NURSES

The advisability of forming a special section for industrial nurses as a part of the National Organization for Public Health Nursing is being considered by the Committee on Industrial Nursing. The Committee has taken as its task for the current year the work of discovering the opinion of the industrial nurses throughout the United States as to the wisdom of forming this special section. The plan is to have a committee member from each state discover the names and addresses of as many industrial nurses as possible within her state. This may be done by having a nurse from each county send to the member for that state a list of the industrial nurses from her county. In the large cities the same method may be

used, dividing the city into wards. A complete list of nurses employed in industry would of course be valuable, but it is hoped that such a list as this will be sufficient to get an expression of general opinion. A large number of industrial nurses are expected to attend the next annual meeting of the National Organization for Public Health Nursing which will be held in Atlanta, April 12-17, 1920.

Qualified nurses are eligible to membership. Employers are eligible to corporate membership. Associations of employers, of employers and workers, or of employees, are eligible to corporate membership.

All industrial nurses are urged to attend the Atlanta meeting and employers of industrial nurses are urged to send a nurse as their representative.

NEED OF PROTECTING THE HEALTH OF WORKING CHILDREN

By HAROLD H. MITCHELL, M.D., Special Agent, Health, National Child Labor Committee.

We must recognize the need for protecting the health of the working child as we now recognize the health problem of the school child. It is estimated that at least three quarters of a million children in the United States 14 to 15 years of age leave school each year to engage in wage earning pursuits. These children have almost no opportunity to train themselves for other than manual

A tenement home where the whole family, even the little girls, are engaged in cutting embroidery.

labor. They are wholly dependent upon their health and muscle to make a living. Neither they nor their parents have any appreciation of hygiene or how to maintain their health.

The medical profession generally recognizes that children are more prone than adults to the dangers of exposure to poisons which occur in various industries, that children are peculiarly susceptible to a latent tuberculosis, and that they are, as well, prone to the effects of overfatigue and any general physical strain. The very resiliency of youth may increase the health hazard until the danger line is passed and the young worker has lost his most valuable possession—the ability to work and to earn a living. In short, the working child constitutes a singular public health problem.

We must not yet regard child labor as a health problem that will soon be cared for by legislative prohibition. We have pushed legislation until many of the grosser evils are removed, but even if we should raise our minimum age to sixteen years, we should still have a health program of immature wage earners.

Public health standards and methods are now going farther than the sanitation-bacteriology principles of preventing disease. We are now calling on the hygienist and physiologist.

The child labor health problem involves medical examinations for eliminating the physically unfit and for correcting physical defects. Sixteen states now require the examination of a physician for the issuance of a work permit, but a number of these do not really protect the child, as he may go to any doctor who will state that he is in good health. These examinations should result in the removal of all correctable physical handicaps and such subsequent examinations should be required as are neces-

Two boys, ten and twelve years of age, are shown gathering rye. These children should be in school. Child Labor Day is an appropriate occasion for giving attention to the problem of conserving the health of the young wage-earner.

sary to protect the child from the hazards of his employment. If the child is being injured by his occupation, the examiner should have the authority to revoke the permit or require the child to change his occupation and to see that the child is followed with the necessary health supervision through a public health nurse, clinic, or private medical attention.

Medical inspection and testing eyes of children. The child labor health problem involves medical examinations for eliminating the physically unfit and for correcting physical defects. Working children must be trained to protect their own energy and health.

Child Labor Day will be observed throughout the country on Sunday, January 25, in churches; on Monday, January 26, in schools; and on Saturday, January 24, in synagogues. It is an appropriate occasion for giving attention to the problem of conserving the health of the young wage-earner.

Venereal Diseases and the Hospital

Conducted by Alec N. Thomson, M.D.
Director, Department of Medical Activities
The American Social Hygiene Association, 105 W. Fortieth St.,
New York City

PUBLICITY: ITS VALUE IN THE CAMPAIGN AGAINST VENEREAL DISEASES

During the past year a large number of new clinics have been established. There are now listed over 450 venereal disease clinics in the United States. The United States Public Health Service receives reports from 199 of these clinics which operate under the joint control of the Service and state boards of health. A tabulation of these reports for September, 1919, follows:

Admissions	9,103
Remaining from August	21,127
Total under treatment	30,230
Discharged as cured	705
Discharged as probably cured	1,056
Discharged as noninfectious but not cured	356
Discontinued treatment without permission	857
Discontinued treatment without permission	1,870
Total under treatment at end of September	25,386

A definite though probably small percentage of these cases required hospital care; some received it.

There were 93,915 treatments given in this group of clinics. It is reasonable to assume that this represents about one-half of the treatments recorded in all the clinics of the country. Of these treatments given during September, 17,087 were administrations of arsphenamin, and certainly of this number some reactions were of sufficient severity to demand hospital attention for the patient.

In an article in the *American Journal of Public Health* for November 1, Mr. Ray H. Everett, commenting upon publicity, says in part:

"Publicity was formerly considered a more or less valuable feature in connection with the carrying on of a regulation business, formed and run for the sole purpose of making money, but only in recent years has its true value been appreciated from the standpoint of selling such intangible things as *ideas* and *attitudes*. The wonderful campaign against tuberculosis was one of the first to feature its altruistic and educational value.

Campaign Against Venereal Disease Handicapped

"In one way the campaign against venereal disease has been placed at a great disadvantage from its very start. Other diseases, though unpleasant subjects for discussion, *have been* discussed, openly and fairly. Efforts toward eliminating them have not been handicapped by a confusion of moral and medical aspects or an attitude of pseudo-modesty. The terrible physical effects of syphilis and gonorrhea, however, have been left during the years for the consideration of the medical profession and a small group of persons engaged in social welfare work. The Japanese simian trinity of wisdom, so often seen in curio shops, modeled in metal or in wood and acting out the three admonitions—'See no evil; speak no evil; hear no evil,' aptly characterizes the age-old attitude regarding the venereal diseases and their main source of supply, commercialized prostitution.

"These were the conditions under which the pioneers in the fight were compelled to labor. Organizations were obliged to depend on lectures and a small scale distribution of literature as practically the only means for reaching an uninterested public and great credit is due those early workers for driving the opening wedge. Slow but certain progress was made during the early years of the twentieth century but the past three years have witnessed an advance by leaps and bounds. The reasons for this marvelous advance are summed up in the one trite expression, *'c'est la guerre.'*

"When our army authorities were compelled to face the stern realities of the venereal problem during the days of mobilization and the newspapers of the nation realized that millions of mothers, fathers, and other loved ones were becoming vitally interested in anything and everything which might affect the health and welfare of their boys, the word 'venereal' began to find its place in the columns of the public prints. Disguised occasionally as 'blood diseases,' 'social diseases,' 'loathsome diseases,' or by other misleading designations, syphilis and gonorrhea began to receive a portion of that attention to which their prevalence and seriousness entitle them.

"An important percentage of men and women who never before had thought seriously concerning syphilis and gonorrhea, were told in straight-from-the-shoulder language the truths so familiar to physicians and social workers. They were informed of the locomotor ataxia, paesis and insanity resulting from syphilis: of the blindness in babies, the sterility, and the large number of female operations caused by gonorrhea. But, on the other side, the 'joys' also had their innings. These same people were told of the wonderful advances made by the medical profession in curing these diseases. They were impressed with knowledge that the same American plan which worked so well in the army can be applied to their own communities with like good results.

Chamberlain-Kahn Bill Impetus

"The Chamberlain-Kahn Bill appropriating $4,100,000 for fighting venereal diseases has given the campaign a great impetus. The portion of this appropriation allotted to the United States Public Health Service and, through that agency, to the individual states, has enabled both national and state agencies to prepare and distribute the most helpful kind of educational literature. Though this is but one branch of the Public Health Service's activities, it distributed, in conjunction with the various state boards of health, more than 14,000,000 pamphlets during the twelve months ending June 30, 1919.

"It has also secured an inestimable amount of the right kind of publicity through such other sources as motion picture showings, talks in industries, framed placards in railroad stations and coaches, lectures before organizations, churches, schools, and special sermons from 2,302 pulpits.

"A number of the state boards of health have used paid advertising space in their newspapers with gratifying results. Local organizations have shared in the expenses in some instances and this cooperation serves the doubled purpose of making the state's appropriation cover more ground and interesting personally the members of contributing organizations such, for instance, as chambers of commerce, Rotary and Kiwanis clubs, and other local bodies working for civic betterment. When the so-called 'conservative' citizens of a community open their newspapers and are confronted with a full page ad informing them that their state went 'over the top with her full quota of venereal disease,' when, as an argument against the red-light district, they are confronted with the pertinent query, 'Have you a daughter to spare?' they begin to realize that the nation-wide campaign against syphilis and gonorrhea is not some vague, intangible thing to which their local affairs are only distantly related, but a vital, pulsating movement which is closely linked to the efficiency, welfare, and health of themselves and their neighbors.

Advertise to Fight the Quack

"Then again, when a local clinic is established, the question usually arises in the minds of those responsible for its success or failure, 'How can the facilities of this clinic be made of most value to the people at large?' And again the consensus of authoritative opinion answers, 'Through publicity.' That arch enemy of public health, the quack, has always depended on advertising to build up his malodorous practice. He may well be fought on the battlefield of his own choosing. A small ad inserted in the same column as that of the quack's directly above or below if possible, telling the advantages of the public clinic and warning the sufferer against the type of treatment dispensed by the bogus medicos has proved effective in many states and municipalities. This should be supplemented by posters and cards, giving the location and hours of the clinic and a brief *résumé* of the symptoms of venereal diseases, posted in public places and industrial lavatories, and distributed to those men and women in need of such information.

"Besides the United States Public Health Service, there are two other organizations aiding in the conduct of the campaign nationally. One is the United States Interdepartmental Social Hygiene Board, a governmental body; the other is the American Social Hygiene Association, a private corporation, non-profiting and supported wholly by voluntary contributions. The former, besides operating a corps of trained field agents, is engaged in stimulating research work among the schools and colleges of the country for the purpose of learning new methods for preventing and controlling the venereal diseases.

"The main purpose is to procure all possible publicity for the national campaign. In the performance of this work the needs of the ninety and nine are deemed of paramount importance and the material is written in non-technical language, using to a great extent the layman's psychology. John Smith does not know a primary lesion from a hole in the ground but when he is told, in simple language, of the ravages of syphilis and gonorrhea, of the blind babies, invalid wives, and paralytic insane due to these plagues; when he is told further the symptoms of venereal diseases and that they are both preventable and curable, he will usually act upon the implications and act rationally, in the light of his newly acquired knowledge.

"Only a few days ago in discussing this subject a doctor in a good sized New England city remarked, 'You and many others connected with social hygiene work are too optimistic over what has been done and what you hope to accomplish. So far as I can see all you are doing is to drive more venereal disease cases to the doctors.' He then mentioned the number, an astoundingly large one, of patients treated at the venereal disease clinic in his city during the preceding month.

Hundreds of Requests for Aid

"Even taking this physician's estimate as *all* that publicity has accomplished in the fight would it not have proved a strong case for the advocates of this measure? But if this same man and the hundreds like him could but look over the mail arriving during the course of a single week,—if he and they could know of the hundreds of requests from individuals and communities for 'publicity to help us in preventing a return of the red light district,' 'publicity to aid us in obtaining a clinic,' 'information as to the treatment of syphilis and gonorrhea,' 'a set of literature for the use of an editor who wishes to help in the campaign,' 'suggestions for a placard to advertise our local clinic,' and hundreds of other communications regarding all phases of the combat against prostitution, syphilis, and gonorrhea, they would concur in that old sentiment, 'the world *do* move,' and credit publicity as one of the main accessories in the moving process."

COMBATING VENEREAL DISEASES IN INDUSTRY

In the general campaign for bringing the man or woman infected with gonorrhea or syphilis under treatment, industry is vitally interested. Industry from both angles—labor as much as capital. The hospital, the clinic, and the private practitioner without adequate facilities for handling cases of gonorrhea and syphilis, stand in a dangerous position. Undoubtedly Neighbor Industry will approach one or all of the medical groups asking for treatment, advice, and diagnosis. Let the answer be that we are ready to serve all our community neighbors. Thus will we avoid any possibility of Neighbor Industry—capital or labor—reproachfully turning away to find its answer elsewhere.

The United States Public Health Service has recently issued a standard industrial program. The description below was taken from the *Social Hygiene Bulletin* for November, 1919:

"The extraordinary success of the industrial program issued by the United States Public Health Service in cooperation with the American Social Hygiene Association for combating venereal diseases in industry has led to the issuance of a new standardization and revision of this program, which was started early in the war by the Section on Men's Work, Social Hygiene Division of the War Department Commission on Training Camp Activities.

"The standardized program includes a letter signed by Rupert Blue, Surgeon General of the United States Public Health Service, and seven pieces of educational material in addition to an order blank and return-address franked envelope. The letter is intended to acquaint employers of labor with the venereal disease situation and to show them how they can provide educational material and ex-

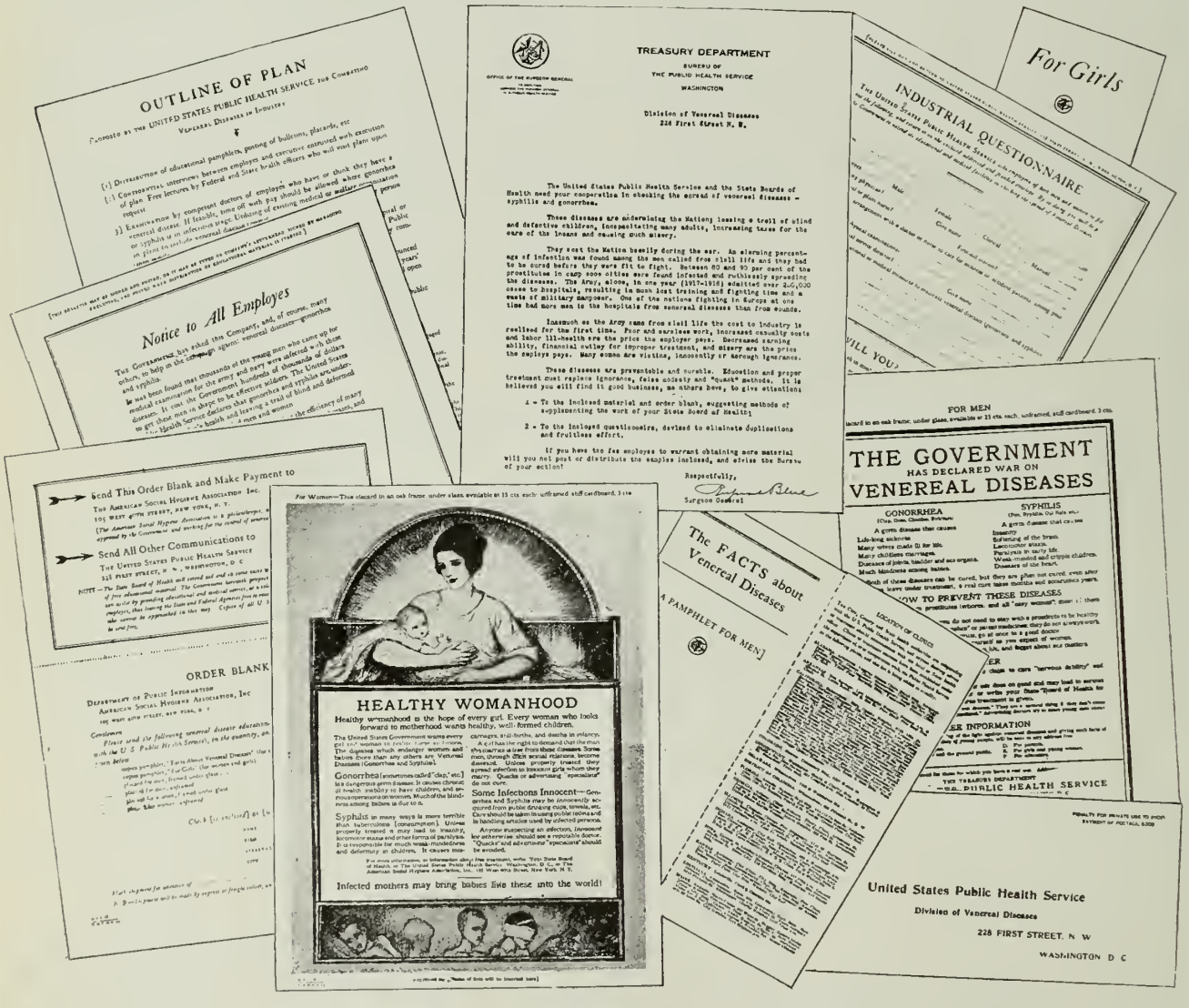
tend medical service to their employees. The educational material includes:

1. An outline of the plan, calling attention to the possible steps in the venereal disease control campaign. These steps include distribution of educational material, interviews between employer and employees, examinations by competent doctors of employees who may be infected, proposals for the disposition of cases, and general statements designed to interest the employer in the government campaign.
2. A placard for women, illustrated by W. T. Benda.
3. A placard for men.
4. A proposed notice to employees to be signed by the president or manager of a company and to be posted throughout the plant. This notice calls attention to the government's request that the employer assist the employees in securing information and medical service.
5. A pamphlet for women and girls giving the essential facts about venereal diseases and how they may be avcided, and carrying a full list of approved clinics.
9. A return franked Public Health Service envelope to be used in returning the questionnaire.

"The previous industrial program did not contain educational material for women, whereas the revision includes a placard and pamphlet especially for them. The original program was sent to approximately 57,000 industrial establishments in 1918, resulting in the purchase of almost 750,000 pieces of educational material by employers for distribution among their employees.

TREATING SYPHILIS AND GONORRHEA IN THE HOSPITAL

Undoubtedly the hospital of today is treating syphilis and gonorrhea. What percentage of this is being treated unknowingly in the hospital—*your* hospital—is the big factor for study at the present moment. Practically all


OUTLINE OF PLAN
Notice to All Employes
TREASURY DEPARTMENT
BUREAU OF
THE PUBLIC HEALTH SERVICE
WASHINGTON
Division of Venereal Diseases
228 First Street N. W.
Send This Order Blank and Make Payment to
Send All Other Communications to
THE UNITED STATES PUBLIC HEALTH SERVICE
ORDER BLANK
For Women—This placard in an oak frame, under glass, available at 15 cts. each; unframed, stiff cardboard, 3 cts.
HEALTHY WOMANHOOD
Healthy womanhood is the hope of every girl. Every woman who looks forward to motherhood wants healthy, well-formed children.
Gonorrhea (sometimes called "clap," etc.)
Syphilis
Infected mothers may bring babies like these into the world!
For Girls
INDUSTRIAL QUESTIONNAIRE
FOR MEN
THE GOVERNMENT
HAS DECLARED WAR ON
VENEREAL DISEASES
GONORRHEA
SYPHILIS
HOW TO PREVENT THESE DISEASES
The FACTS about Venereal Diseases
A PAMPHLET FOR MEN
United States Public Health Service
Division of Venereal Diseases
228 FIRST STREET, N. W.
WASHINGTON, D. C.

The standardized industrial program issued by the Public Health Service includes these pamphlets.

6. A pamphlet for men, originally issued by the United States Public Health Service and slightly altered and condensed, giving the essential facts about venereal diseases and how to avoid them, and a complete list of clinics.
7. An order blank.
8. An industrial questionnaire by which it is hoped to get information as to the number of employees and facilities for venereal disease education and a statement from the employer as to what he is willing to do. This is to be returned to the United States Public Health Service.

writers agree that in- and out-patient treatment facilities are required in every community for these diseases and no one has as yet advanced any proof that to care for a case of syphilis or gonorrhea calls for greater skill or trouble than other communicable disease. Certainly typhoid precautions require as much carefully worked out technique as syphilis. Assuredly the care of a complicated infected surgical case with drainage requires as

much aseptic and antiseptic attention as the gonorrheal epididymitis patient.

Gonorrhea and syphilis patients are human and are amenable to all the rules and regulations of the well organized and administered hospital. They as patients are particularly quick to respond to a word of cheer instead of condemnation. To quote Dr. John H. Stokes:

A Special Atmosphere Should be Created

"A special atmosphere can and should be created, akin in many of its qualities to the atmosphere of the best types of tuberculosis sanatoriums. Line-ups, publicity, crudity, rough-and-ready methods, noise and lack of refinement, coldness and lack of good will, are all dangerous to the integrity and success of any special service for this disease which deals with the so-called great middle class. Nor is there any reason why the poor should be obliged to submit to them merely because of their poverty. High-grade nursing, exceptional tact and discretion, the qualities of mind and heart in the staff which keep the patient always affectionately reminded of the department, are business assets in the care of syphilis."

Doctor Stokes' remarks apply with equal force to the in- and out-patient department, and to gonorrhea as well as syphilis.

Gonorrhea and syphilis are communicable diseases of known origin, requiring intimate personal contact for their dissemination. They are but rarely transmitted by means of the drinking cup, eating utensils, or other fomites. Thus with reasonable care—the usual care of a good hospital—there can be no risk for attendants or other patients. Present day therapy for syphilis shortens the period of infectivity to a matter of days, in so far as the hospital problem is concerned. The same is not true of gonorrhea, however, for here the infected material issues from only one part of the patient's body, if at all.

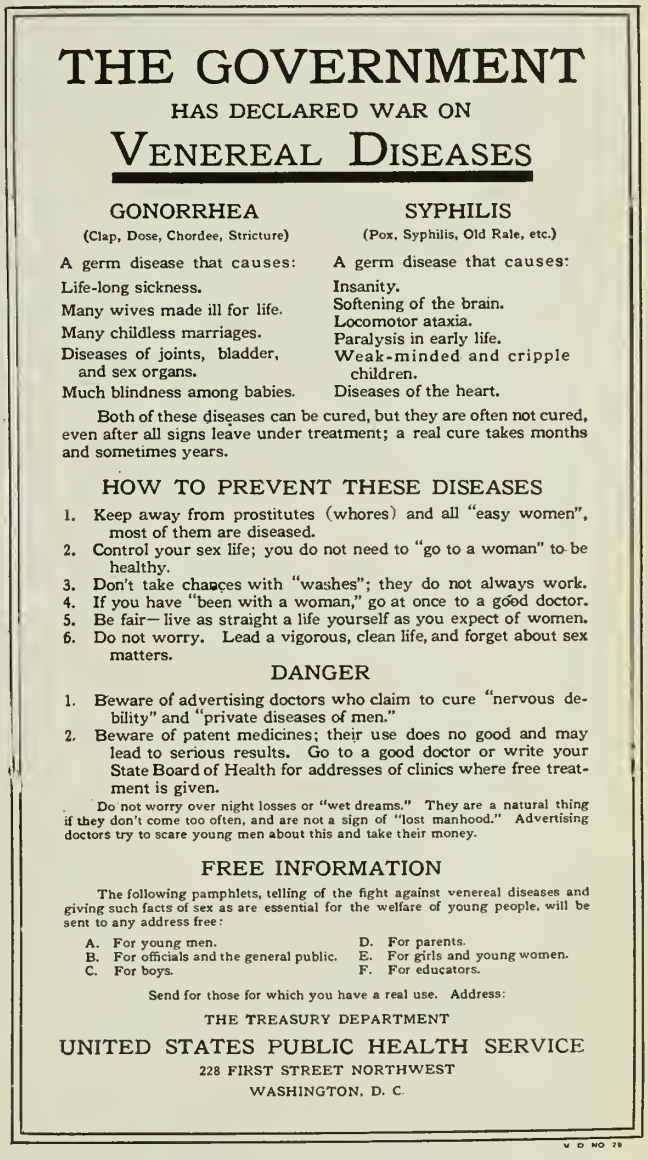
Every hospital treating a thousand patients a year and not admitting syphilis and gonorrhea is probably treating more than one hundred individuals with syphilis, though not *for* syphilis. How many of these are communicable is an unanswered question but if unrecognized they are *all* dangerous from the standpoint of hospital management and all neglected from the viewpoint of hospital service. To a lesser degree gonorrhea "gets by"—that it does, most staff doctors can testify. Recently a patient, as well as his physician, was greatly surprised to find his gonorrhea "cured" upon his discharge from the hospital after his particularly severe attack of typhoid. The weeks in bed, the pyrexia, and the fluid diet are presumed to have performed the miracle, but the hospital was none the wiser.

"Early diagnosis favors success both in treatment and prevention" is a common expression used by those engaged in combating venereal disease. It should be a rule for the hospital. If all cases are recognized upon admission, the prevention of innocent infection within the hospital can be eliminated. This elimination accomplished, has the general hospital any moral, legal, or community right to exclude—or more properly expressed, attempt to exclude—the individual,—man, woman, or child, innocent or otherwise, applying for treatment, whether that treatment be for gonorrhea or syphilis or some other disease? The writer is inclined to believe not, but would like your opinion.

Such a vast amount of discussion is being given to the question of venereal disease—its control, its treatment, its prevention, as well as its economic and social side,—that the hospitals and dispensaries require a forum. This department proposes to endeavor to act in that capacity and will welcome practical, concise statements or descriptions upon policy, administrative organization, equipment, and kindred subjects.

PLACARDS POSTED IN TRAINS PRODUCE BIG RESULTS

A fair percentage of our readers have traveled by pullman, either sleeper or parlor car, during the past year. Perhaps they have wondered how much effect the placards posted in the toilets have had upon the average passenger. These placards were posted in day coaches and railroad stations as well as the pullman cars. There have been placed in railroad coaches 48,847 placards, framed under glass. Twenty-eight state health departments have purchased 17,567 placards for posting in toilets of railroad stations.


THE GOVERNMENT
HAS DECLARED WAR ON
VENEREAL DISEASES
GONORRHEA
(Clap, Dose, Chordee, Stricture)
A germ disease that causes:
Life-long sickness.
Many wives made ill for life.
Many childless marriages.
Diseases of joints, bladder, and sex organs.
Much blindness among babies.
SYPHILIS
(Pox, Syphilis, Old Rale, etc.)
A germ disease that causes:
Insanity.
Softening of the brain.
Locomotor ataxia.
Paralysis in early life.
Weak-minded and cripple children.
Diseases of the heart.
Both of these diseases can be cured, but they are often not cured, even after all signs leave under treatment; a real cure takes months and sometimes years.
HOW TO PREVENT THESE DISEASES
1. Keep away from prostitutes (whores) and all "easy women", most of them are diseased.
2. Control your sex life; you do not need to "go to a woman" to be healthy.
3. Don't take chances with "washes"; they do not always work.
4. If you have "been with a woman," go at once to a good doctor.
5. Be fair—live as straight a life yourself as you expect of women.
6. Do not worry. Lead a vigorous, clean life, and forget about sex matters.
DANGER
1. Beware of advertising doctors who claim to cure "nervous debility" and "private diseases of men."
2. Beware of patent medicines; their use does no good and may lead to serious results. Go to a good doctor or write your State Board of Health for addresses of clinics where free treatment is given.
Do not worry over night losses or "wet dreams." They are a natural thing if they don't come too often, and are not a sign of "lost manhood." Advertising doctors try to scare young men about this and take their money.
FREE INFORMATION
The following pamphlets, telling of the fight against venereal diseases and giving such facts of sex as are essential for the welfare of young people, will be sent to any address free:
A. For young men.
B. For officials and the general public.
C. For boys.
D. For parents.
E. For girls and young women.
F. For educators.
Send for those for which you have a real use. Address:
THE TREASURY DEPARTMENT
UNITED STATES PUBLIC HEALTH SERVICE
228 FIRST STREET NORTHWEST
WASHINGTON, D. C.
V D NO 29

Placards posted in pullman cars, day coaches, and railroad stations. The United States Public Health Service is receiving from 600 to 700 letters a week attributable to these placards, showing the great success of publicity.

The United States Public Health Service is receiving from 600 to 700 letters a week attributable to these placards. It is not possible to estimate the number of requests for literature or information that go to state health departments.

What effect has this method of reaching the public had upon *your* hospital, *your* clinic, or the physician in *your* community? Treatment facilities have been used to a greater extent than ever before. The publicity is still "pulling" and must result in a steadily growing demand for better and ever better treatment, both private and public. Office, clinic, and hospital facilities are in demand. Are we ready?

A PIONEER IN THE HEALTH HABIT

Twenty years ago I knew a man called Jiggins, who had the health habit.

He used to take a cold plunge every morning. He said it opened his pores. After this he took a hot sponge. He said it closed the pores. He got so that he could open and shut his pores at will.

Jiggins used to stand and breathe at an open window for half an hour before dressing. He said it expanded his lungs. He might of course have had it done in a shoe shop with a boot stretcher, but, after all, it cost him nothing this way. And what is half an hour?

After he had got his vest on Jiggins used to hitch himself up like a dog in harness and do shadow exercises. He did them forward, backward, and hindside up.

He could have got a job as a dog anywhere. He spent all his time at this kind of thing. In his spare time at the office he used to lie on his stomach on the floor and see if he could lift himself up with his knuckles. If he could, then he tried some other way until he found one that he couldn't do. Then he would spend the rest of his lunch hour on his stomach, perfectly happy.

In the evenings in his room he used to lift iron bars, cannon balls, heavy dumbbells and haul himself up to the ceiling with his teeth.

He liked it.

He spent half the night slinging himself around the room. He said it made his brain clear. When he got his brain perfectly clear, he went to bed and slept. As soon as he woke he began clearing it again.

Jiggins is dead. He was, of course, a pioneer; but the fact that he dumbbelled himself to death at an early age does not prevent a whole generation of young men from following in his path.

They are ridden by the health mania.

They make themselves a nuisance.

They get up at impossible hours. They go out in silly little suits and run marathon heats before breakfast. They chase around barefoot to get the dew on their feet. They hunt for ozone. They bother about pepsin. They won't eat meat because it has too much nitrogen. They won't eat fruit because it hasn't any. They prefer albumen and starch to huckleberry pie and doughnuts. They won't drink water out of a tap. They won't eat sardines out of a tin. They won't use oysters out of a pail. They won't drink milk out of a glass. They are afraid. Yes, sir, afraid. Cowards!

And after all their fuss they presently incur some simple, old-fashioned illness, and die like anybody else. —Stephen Leacock, in *Dallas News*.

A NAIL IN HIS THORAX

Simon Flexner tells a good story, which will easily bear, in South Africa, repetition. A farmer in one of the western states of America wrote to a New York radiologist, stating that he had had a nail in his thorax for seventeen years, and, as he was too busy himself to take a journey to New York, he would like the specialist to go to him, and take his rays with him. If the specialist could not do that, he requested that he would send a dozen rays, boxed, by express, with instructions for working them. The radiologist replied that he, likewise, was too busy to take the long journey to the West, and was out of rays just then, but if the farmer was too busy to come himself he had better send his thorax by parcel post.—*South African Medical Record.*

Old Mrs. Murphy came into the dispensary one morning. "Well, Mrs. Murphy, how are you today?" she was asked. She replied, "Shure, I don't know, dear, I haven't seen the doctor yet."

Another Strike!

The lunatics all are as mad as can be,
They're raving and running amuck;
Their disturbance has all of the others outclassed,
For the movement has reached the asylum at last,
And all of the inmates have struck!

The maniacs fight with their might and their main,
The Bedlamites jump from their beds;
The Insanity Union has uttered this threat:
Unless their demands are instantly met,
They'll tie up every wheel in their heads!

—The Idiot.

HOSPITALIZATION OF WAR HEROES AN ENORMOUS PROBLEM

Hospitalizing the patients of the War Risk Insurance Bureau is an enormous problem. The Secretary of the Treasury has already been authorized by Congress to provide additional hospital and sanatorium facilities to meet the necessities of the situation. This phase of the work is administered by the Bureau of War Risk Insurance using as its agency the United States Public Health Service, which also has at its command the United States Public marine hospitals and the special hospitals which Congress has authorized it to secure by purchase or lease. These include a certain number of temporary hospitals which were turned over by the army.

The Public Health Service will have to provide additional hospitals to take the place of these temporary institutions as well as special institutions for the care and treatment of mental and nervous cases, the tuberculous, and epileptics. The number of persons who will apply for relief under the various acts will increase rapidly for a number of years to come, probably until at least 1929. The Public Health Service has already created a home for epileptics in Massachusetts, a psychopathic hospital in New York, and an institution for the care of neurosis cases at Waukesha, Wis.

Many claimants under the War Risk Insurance Act not only need to be given hospital relief, but also treatment in clinics. A number of these clinics are already scattered throughout the country, but they must be increased materially. These clinics will serve a useful purpose as way-stations to and from the hospital, and will care for convalescent claimants who, while not requiring hospital relief, should be kept under observation for several years. In order to meet the very heavy burden which has been placed upon it, the Public Health Service has increased its regular and reserve corps. The director of the Bureau of War Risk Insurance has, in addition, appointed a corps of special examiners to operate on a fee basis in various parts of the country in order that the claimants may receive examinations and every medical attention without prolonged travel.

OCCUPATIONAL THERAPY, VOCATIONAL RE-EDUCATION AND INDUSTRIAL REHABILITATION

Conducted by DOUGLAS C. McMURTRIE, Director Red Cross Institute for Crippled and Disabled Men and MRS. CARL HENRY DAVIS, Adviser in Occupational Therapy, Milwaukee-Downer College.

ADAPTING BLINDED FRENCH SOLDIERS TO NEW CONDITIONS

French theory and practice in the reconstruction of blinded soldiers are summed up in a most readable, sympathetic book by M. Paul Emard, director of the National Convalescent Home for Blinded Soldiers at Paris, the French St. Dunstan's.[1] The object of a reeducational institution for the blind, says this author, is to readapt the man to his new condition by restoring the will-power which was built up by his former working experience. It is this will-power and the visual impressions still alive in his memory that make the difference between the blinded soldier and the man born blind. The methods of training are not the same for both, for the blinded soldier's readaptation will be more voluntary and more rapid.

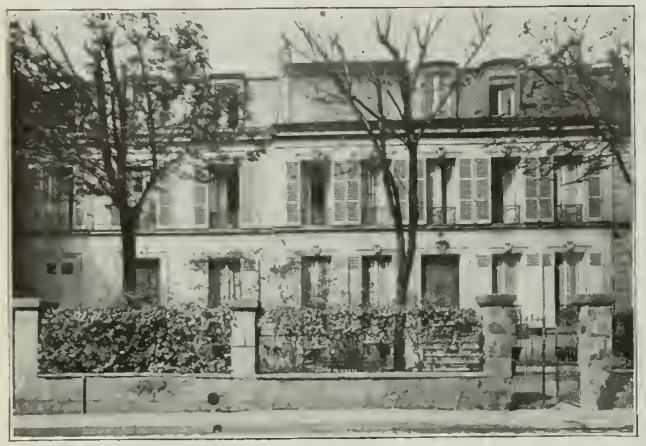
Concerning the trade to be taught a blind man, M. Emard insists that it shall be a complete one, so that he shall not depend upon the cooperation of his family. It must be permanent and must insure regular earnings, not dependent upon patriotic or charitable motives; the blind man should produce articles of common and general use and sell them at the market price; above all his workmanship must be good. The trade, moreover, should be one which is not overcrowded by sighted or blind competitors; normally a good blind worker should be able to compete with a sighted worker, and, in addition, the authorities and private foundations may protect him and help him in marketing his products. The competition among the blind themselves in certain favored trades may prove dangerous, and to avoid it, price agreements between them will be necessary; the greatest danger is that the work of those insufficiently trained or of amateurs may undermine the confidence of the public in the work of the blind generally. The trade must not be an easy one, but one demanding intelligence, so that it may give the man moral satisfaction. The Reuilly school, therefore, has not confined itself to the traditional trades for the blind, but has been looking for new trades in which the work is interesting and not monotonous.

The best working place for the blind is his home; but home work is not possible everywhere or in all trades. In ordinary workshops for sighted persons the blind man will necessarily suffer from his inferiority. Wherever home work is impossible, the blind man should be placed in a special shop for the blind, directed by sighted persons and provided with all the necessary special arrangements and appliances, The most complete order should be observed, as this is necessary for the orientation of the blind. An ideal arrangement would be a shop for the blind located in a building where the men and their families would also be provided with apartments. Specialization would be disastrous for the blind, both from the intellectual and the social point of view. Their apprenticeship must therefore be such as to prepare all-round men. The blinded soldier should feel sure enough of his competency to go on strike whenever his interests require it.

It is the duty of the state, of the family, of the general public, and of the different associations for the blind to protect the man after his re-education has been completed in such a way as not to interfere with his independence and free initiative, but to attenuate his handicap and to eliminate the different kinds of guides or other intermediaries. The state, in addition to the pension, should assist blinded soldiers by facilitating their access to positions in the civil service, as masseurs in military hospitals, as telephone operators, as primary school teachers, etc., by giving them orders to fill for the different state departments, by protecting their health, and by hospitalizing those totally disabled. The family should provide the blinded soldier with a pleasant home, but should refrain from paralyzing by exaggerated expressions of affection the man's will and self-dependence; marriage should be avoided until re-education is well advanced. The general public will have to treat the re-educated blind man as a normal citizen and worker, to help find for him opportunities of permanent employment in different trades, to be ready to pay him for his work fairly, on the basis of his competency alone. The different relief societies will have to provide the blinded soldiers with any additional subsidies they may need in time of stress, to provide educational facilities for their children, to organize their placement, or to help them in the purchase of materials and in the sale of products; it would, however, be inadvisable for any associations to buy directly the product of the work of the blind; this would paralyze his initiative and might also result in decreasing his profits by restricting his market; the society should act only as an intermediary.

At the beginning of the war France had no program for dealing with the blinded, and the re-education policy has been evolved empirically. The first groups of blinded were treated in a new pavilion of the Hospice des Quinze-Vingts, which had just been completed, and, when this treatment was finished, were kept there. In March, 1915, the Ministry of the Interior established, as an annex of Quinze-Vingts, the Convalescent Home for Blinded Soldiers, in the rue de Reuilly, in a building formerly occupied by a religious congregation. All blinded soldiers whose medical treatment had been completed were placed in this home, which could accommodate two hundred men. Later on, a number of local branches were created: three in Paris, two in Lyons, and one in each of the cities of

1. Emard, Paul. Dans la nuit lalorieuse. Essai sur la rééducation des soldats aveugles. **Paris, 1917.**



One of the many homes for blinded soldiers in France, where they can learn new trades.

Amiens, Bayonne, Bordeaux, Caen, Chartres, Dijon, Marseilles, Montpellier Nantes, Saint-Brieuc, Tours, Toulouse.

A private association, Les Amis des Soldats Aveugles, created at the initiative of the author, has been mainly instrumental in shaping the teaching activities of the Reuilly Institute. At first the inmates were offered nothing but distractions, which they accepted with polite indifference. A month later, a very rudimentary brush-making shop was installed, and this at once dissipated the monotony and melancholy of the place and enlivened it.

The vocational training has gradually expanded and is now given in a variety of trades that had never before been tried for the blind. The author reviews the different trades in great detail.

Brush-making is one of the easiest trades for the blind, four months being sufficient to learn the making of all kinds of brushes. The demand for brushes is large and the trade can be carried on at home, with the help of the family. There is a possible danger, however, in the large influx of blind into this trade and also in the competition of mechanical brush-making. The blind should be discouraged from specializing in bristle-brushes, as this work requires great skill that can be acquired only by many years' experience.

Making and repairing of chairs was included in the program of the Reuilly school, as it was one of the few classical trades for blind. However, the earnings, even of a very good worker, in this trade are small, and the blind soldier should be dissuaded from taking it.

Macramé and raffia work and netting are not considered real trades. They are taught, however, during the first days of convalescence, as a distraction and an exercise, and as a possible spare-time occupation.

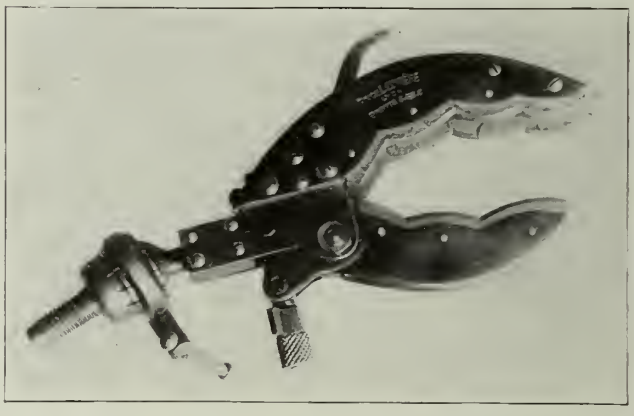
A room in the home for the blind. The men are being taught brush-making, one of the easiest trades for the blind. This is an occupation which can be carried on at home.

Basket-making is one of the good trades, as the demand is steady and no competition of machine work is to be feared. The teacher must be a sighted person. The man should be taught to make one or two articles of general use and readily salable. The duration of apprenticeship is from six to eight months. The making of fancy articles would require an apprenticeship of several years.

The course of massage consists of two sections: (1) massage proper, and (2) theoretical instruction in anatomy and physiology. The duration of the course is of about one year and a half. The pupils are kept at the institution until they receive their diplomas, after passing a very severe examination. A group of graduated have been very satisfactorily employed at several military hospitals in Paris; a number of others practice in different health resorts.

The cobbling shop started with repairs of the inmates' shoes; it is now doing work for outsiders. The men are mainly doing pegged work, but they are able also to do hand-sewn work, thanks to a special hollow awl devised by one of them.

Cooperage has been very successfully tried at Reuilly,



Type of pinchers used by blind and one-armed men in France.

under a blind instructor, and the author considers it as one of the best trades for the blind. The work is healthful, varied and interesting, and the earnings are good. The pupils are able to make and to repair any type of barrel.

The course of piano tuning was started at the initiative of a prominent piano manufacturer, who is himself blind. The purpose is to prepare really skilled men, able to pass the very difficult trade-union test, and to place them in piano factories. Several men have already obtained the trade-union card; no placements, however, have been made, as the production of pianos has been entirely suspended.

The machine-fitting shop was likewise established by a machinist blinded by accident. The first group of twelve graduates have supplied the personnel of the machine-fitting shop established at Auteuil, near Paris, by the Association Les Métiers des Aveugles de Guerre, which receives orders from some of the largest automobile and machine plants.

One of the latest courses introduced is that of grinding glass-stoppers, which by a special device has been made accessible even to the blind who are at the same time one-armed. This work can be done both in a factory and at home, provided motor power is supplied.

There is, at the Institute, a school of Gregorian chant

and of organ playing, the purpose of which is not to prepare professional singers or organists, but only to give amateurs the opportunity of additional earnings in the home village.

There is, finally, a class in telephone operating. The author, however, does not believe that this should be generally adopted for the blind, as it is not a trade by itself and employment would not be permanent; and, as the light signal system has been steadily replacing the drop-shutter system, the work has thus become less adapted to the blind.

The association Les Amis des Soldats Aveugles in cooperation with the Société Philanthropique d'Impressions pour Aveugles, has established at the Institute a large Vaughan printing shop; thirty works in Braille, forming seventy volumes, have been published, usually in an edition of one hundred copies each.

To interest the pupils in Braille reading, the official war bulletin, printed in Braille, is distributed every morning. In addition, a small daily, the *Reuilly-Midi*, relating all events of the internal life of the Institute, is distributed every day at lunch time.

Many of the pensioners learn typewriting, though the intention is not to train expert typists; the machine used is a standard model. Two shorthand writing machines

A blacksmith hammer with part of the wooden handle cut off, arranged so that it can be fastened to the stump of the arm as shown in the picture.

have been invented by two blind men, Professor Villey and Lieutenant Muller. Those who wish to correspond in ordinary handwriting are supplied with a "hand-guide" (Guide-Main Reuilly).

Opportunities of gainful occupation as musicians are very limited, and music therefore is taught at Reuilly only as a distraction. The author's experience has not shown that there are on the whole among the blind any greater musical abilities or tastes than among average sighted persons.

Such a bare outline gives however, only the bones of the book and fails completely to reproduce the human charm of the personal anecdotes with which the author vivifies every abstract principle.

JOYS OF THE CONVALESCENT HOME

A convalescent home which is in connection with a certain hospital is so delightful that many of the dispensary children really long to be "just sick enough" to be sent there for a while. One of the boy patients, 13 years of age, came into the dispensary, threw himself down on one of the benches, and said, "Gee, Miss, but it

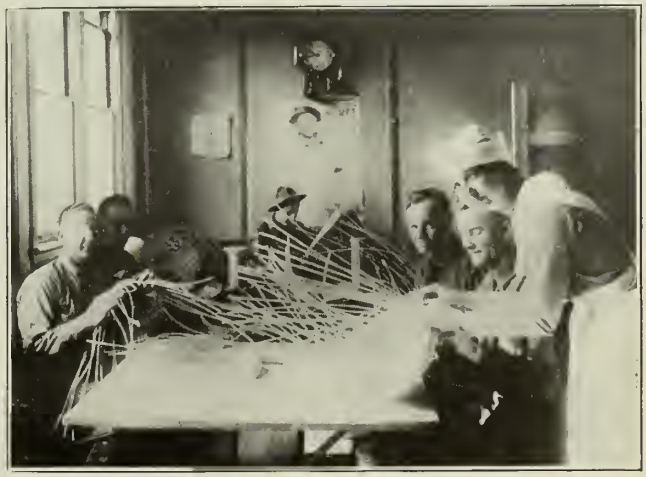
Blind and amputated men operating knitting machines in Hôpital Benevole, Neuilly-sur-Seine, France. Some of the large articles completed are shown on the forms at the right.

is fierce, somethin' fierce when a fellow gits too big to be sent to the cottages. My, the fun we had there and the food (rubbing his stomach). Gee! But you ought to see what we get to eat! I can hardly wait to get me working papers, and then, me for the cottages fer the rest of me life. I could run that furnace and do the work there just as well as any other man."

ARTIFICIAL LIMBS NEVER SO PERFECT AS NOW

Concerning artificial limbs, a subject in which the war casualties have aroused widespread interest, remarks made by Sir Thomas Anderson Stuart, of the University of Sydney, before the New South Wales Red Cross Society are worth quoting as presenting some aspects of the problem more intelligibly and vividly than the usual technical treatise. He says in part:

"Artificial limbs have never at any former period been so perfect as they are now. They convert many a hopeless, useless cripple into a cheerful and self-reliant, self-supporting member of the community, and it is practically the work of the past fifty years. Artificial limbs have, nevertheless, been in use from ancient times, as we learn from early writers and from the relics of an artificial leg found in a Roman tomb at Capua in Italy, taking us back to 300 B.C., and now preserved in the Museum of the Royal College of Surgeons in London. It was made



Blind men making baskets in one of the homes for the blind in France. Basket-making is one of the good trades for the blind.

of a core of wood fashioned to represent the form of the lost member and covered with thin pieces of bronze, the upper third was hollow to receive the "stump," as the remaining portion of a limb is named; the whole was fastened on round the waist, for a bronze belt was found around the waist of the skeleton.

"In Sir Walter Scott's 'Border Antiquities' is an account of the steel hand in possession of the family of Clephane of Carslogie, in Fifeshire, from time immemorial, and given by an ancient King of Scotland to a Laird of Carslogie who had lost his hand in the service of the King. There is also the iron hand made in 1505 for the German knight and brigand, Goetz von Berlichingen, by a mechanic of Nuremberg. This city in more recent times became famous for the making of toys. What are they making now?

"An artificial limb should be light, durable, useful, and natural-looking. Obviously it is desirable to have as little weight as possible to carry about, but more important than this is the fact that it has to be attached to, and be wielded by a stump, which is often short and weak. The leverage against the stump is often considerable, the more considerable the shorter the stump, and just because of this adverse leverage the wearer will often say that the limb is too heavy to wear, when it is really the stump which is short and weak. This should always be explained to the wearer, who is apt to think that the artificial limb supplied to him is of no use to him—perhaps it will come all right when he has learned how to use it, and when his stump has developed strength by exercise.

"In all cases it is found that the patient's desire to work is of the greatest importance—no limb is good enough for the man who does not want to use it. It is the same with every instrument or tool; it must be used willingly and intelligently. Then, have we not all seen the finest work produced by the rudest implement in the hand of the skilled workman? I can show you a letter written by a lad who has two artificial arms, some six weeks after he began to wear the limbs. It is well written, and the lad says that the character of the writing is like that of his writing before he lost his limbs. This is because it was the same brain that directed the movements of the natural and of the artificial limb. In large establishments there are demonstration rooms where demonstrators teach men how to get the best results out of their artificial limbs—like other instruments the wearer must learn how to use them. Moreover, the wearer must have confidence in his limb. If he thinks his leg may not support his weight he will never step out briskly and fearlessly, as he would on his natural limb, and he will, therefore, also be the less natural in his movements. At its best the artificial limb is a poor substitute for the natural limb, and it is only by intelligent practice in the use of it that even the best artificial limb can be made anything like a successful substitute. We should not expect too much from it—it is entirely wanting in feel; what can we do with our natural limbs when they are "asleep" from pressure? Apart from intelligent use, the length of the stump and the original fit of the limb are important factors, and we must not lose sight of the kind of work the man is to engage in. A movable ankle may be better for one man, a non-movable for another.

"Willow wood or American bass, from specially selected trees, is generally employed for the socket, that is, the part receiving the stump. In Australia it is mostly willow that is used, for it is very light, strong, straight-grained, easily worked, and not too porous. The wood should be worked so that the grain follows the line of the greatest strain, permitting the greatest strength with the least weight and bulk of material. The tree is best left standing after being ring-barked for perhaps two years, then it is cut into suitable blocks, seasoned under cover, and perhaps dried in a kiln. The tendency to crack is provided for by metal rings, and by enveloping the outside of the finished socket with wet rawhide, which, as it dries, shrinks and binds the socket firmly. The surface of the wood inside is varnished to prevent moisture and secretions penetrating, for the limb would then become foul and malodorous, and would be apt to make the stump and scar unhealthy. For this same reason leather is not a good material for a socket. There should be holes in the socket, so that the interior is well ventilated to prevent the accumulation of moisture from the limb. Thus the scar is prevented from becoming soft and sodden. The hollow of the socket must be tapering or sloped just as the stump is, so that the pressure is exerted where it is wanted. If this is not attended to the patient will stuff in cloths to pack the stump in the socket and so get firmness; but this is bad, for the stump gets moist and unhealthy, especially in summer. In the case of the leg, grooves must be provided for the shin-bone and for the outer bone of the leg—these bones are near to the surface and but poorly covered by soft tissues.

"For the joints good steel must be used, judiciously combining strength with lightness. Aluminum is often used when lightness and small bulk are desired, and Dr. Kent Hughes writes that the best leg he saw in England the other day was made of aluminum with standardized parts, so that it could be assembled for any particular case in some fifteen hours.

Disabled soldiers of the world war learning the art of basket weaving at the Ohio Mechanics Institute. This is one of the many colleges cooperating with the Federal Board for Vocational Education in making a new man of the injured fighter. Basket making is one of the good trades for men whose eyesight is impaired, as the demand is steady and no competition of machine work is to be feared. (Photo by International.)

"The artificial limb should be such that the patient likes to wear it. If he does not like it, he will not wear it. When the limb really fits him the physical and mental comfort which it brings to the wearer is beyond expression—it converts the desponding into hopeful, active, useful men and women. To most patients the principal consideration is that the limb should be of practical use in their work, for this governs their earning power, and most wearers are poor men. That the limb and its movements are natural-looking are also of great moment to the wearer; it helps them to get employment. Further—remarks by friends and others, however well intentioned,

Work on the farm is one of the useful and helpful branches of labor open to the disabled soldier. Not only does the country need more producers, but the fresh air and manual labor may be just what is needed to give the man new vigor. The illustration shows disabled soldiers being taught how to pick out the good and bad points of a horse by an instructor at the State Agricultural College at Starkville, Mississippi. This college is cooperating with the Federal Board for Vocational Education. (Photo by International.)

very soon become an annoyance to the unfortunate whose defect is too obvious. It is kindest not to notice it.

"Only the best artificial limbs should be used. It is too great a risk to take, that of the limb breaking or getting out of order just when it is most wanted, and patients should remember that limbs with movable joints must be carefully used, kept well oiled, and always protected from injury. Yet with every care they go wrong and their parts wear out, so that provision should be made for repairs. On this account efforts are now being made to adopt standard limbs with standardized parts, so that when parts break or wear out they may be replaced without delay. Rich men keep spare limbs in their possession to provide for accidents, and this is about the only advantage possessed by the artificial as compared with the natural limb. Where the ankle is movable renewal may be wanted in, say three years, but where there is no joint at the ankle the leg may last for eight years or more.

"If all goes well after the operation the artificial limb may be fitted in some six weeks, but on the other hand, the stump may not be ready for months. The fitting of the socket is all important; there must be no discomfort nor injurious pressure at any point. The scar must not be submitted to any pressure or irritation, but must be quite free in space, and, as already said, this space must be ventilated. Many stumps require attention before a limb can be fitted; there may be tender or painful points, due to the ends of the nerves not being cut short enough, and as these are sometimes intolerably painful on pressure, they must be removed by the surgeon. There may be sharp angles of bone or spicules may have grown out; these too must be removed. There must be no pressure on the important nerves or blood vessels. Hence the fitting of a socket is really a matter requiring a great deal of experience. A plaster cast of the stump is made, and it is to this cast that in the first instance the socket is fitted.

"The girth of the stump may vary, for after the application of an artificial limb the stump generally becomes smaller from the pressure of the socket. It is, therefore, often advisable to wear tight bandages, or what is called a "lacer," or corset, laced on to the stump tightly for some weeks before the artificial limb is applied, for if this is not done, when the stump shrinks, the socket is too large, and the limb being less firm in its place, is uncomfortable, and less useful. On the other hand, the exercise of the stump in managing the limb tends to increase its volume. One way or another it may take a couple of years for the volume of the stump to settle down. Patients should have all this explained to them for otherwise they think that the limb is a misfit, or that they are not going to be able to use it, and they grow despondent, when there is no real cause for it."

NEW BILL PROVIDES FOR REHABILITATION OF DISABLED WORKMEN

Vocational rehabilitation, similar to that now in operation for disabled soldiers and sailors, is provided for "persons disabled in industry or otherwise" in the Smith-Bankhead bill which has recently been passed by both houses of Congress.

The bill provides one million dollars yearly to enlarge the scope of the original Smith-Hughes Act creating the Federal Board for Vocational Education and its recent extension to cover war cripples so as to assure the maimed victims of industrial accidents, also, the opportunity for vocational retraining into skilled occupations suited to their physical powers and restoration to useful, self-sustaining jobs.

Physicians, especially industrial physicians, employers, state workmen's compensation officials and organized labor endorsed the campaign for this protective legislation, which was aggressively led by the American Association for Labor Legislation which is also active in promoting workmen's health insurance as the next big step following the successful development of compensation laws.

"There are at present," it was pointed out in the congressional debate, "more than 100,000 permanently in-

These handicapped soldiers are learning engraving at the Bowman School, Lancaster, Pa., a school which is aiding the Federal Board for Vocational Education in giving the sacrificing fighter a new start in life. (Photo by International.)

capacitated workers in the United States, who will be benefited by this legislation, and this large army of casualties of peace is being increased at the rate of 11,500 every year."

Under the bill as passed by Congress the individual states must provide at least one dollar for each dollar expended by the Federal Government on behalf of their own crippled workers. Several states have recently taken favorable action in anticipation of congressional cooperation now assured in the Smith-Bankhead bill.

Happy is the man who does all the good he talks of.—Italian Proverb.

Book Reviews and Current Hospital Literature

A SERIES OF CONSECUTIVE CLINICAL DEMONSTRATIONS AND LECTURES. By Frank Smithies, M.D., Augustana Hospital, Chicago.*

This new periodical, as is indicated by its subtitle, presents a series of consecutive clinical demonstrations and lectures. The clinical demonstrations—in this issue thirteen in number—cover many aspects of the internist's field; the lectures, as, for example, those appended to the clinics on gastric syphilis, and on ulcerative enterocolitis, are based upon work which Doctor Smithies has published elsewhere. The appended descriptions of the laboratory tests used in the development of the particular case represent another feature of these clinical lectures.

The general plan of presentation is more or less uniform in the several clinics, consisting of a well developed history, the findings on physical examination and in the laboratory, a summary (1) of the clinical history, (2) of the clinical examination, and (3) of the clinical laboratory examinations, a discussion of the diagnostic data, and of the treatment and the results of treatment. Also, as already noted, several of the clinics are followed by a thorough handling of their outstanding features (e. g. benign pyloric stenosis, and medical treatment of gastric ulcer).

Among the conditions thus taken up in clinical form are the following: lethargic encephalitis; thrombosis of cerebral arterioles with epileptiform attacks; paroxysmal tachycardia; peptic ulcer; gastric syphilis; lead poisoning with anemia of the pernicious type; idiopathic pernicious anemis; morbus maculosus neonatorum; pyloric and common bile-duct obstruction; sigmoid diverticulitis; and chronic ulcerative enterocolitis.

One concludes the reading of a clinic with the feeling that all that could be done in the diagnosis of the case and all that could be said in the interpretation of the findings has been done and said. That we question somewhat the strength of the foundation on which the author bases some of his conclusions is not important, inasmuch as his conclusions are generally shown to be correct. We are inclined to the belief, however, that his ultra-detailed processes of diagnosis and thought appeal rather to the physician who is in a position to analyze cases as does Doctor Smithies (and, therefore, is in no great need of his methods) than to the physicians whose practice is not confined to internal medicine, and who crave brief, incisive hints along modern lines. And should it not be our purpose to reach the average reader in our clinical teaching?

One of the most interesting features of this type of publication—and it is apparently gaining in favor—is the light it throws upon our methods of teaching. The didactic, the textbook method, is being superseded more and more by the case method, whether in the class room, in the small bedside clinic, or in the form of clinical lectures, and to this change we must heartily subscribe in view of the frequent deviation of the cases from the type. The textbook still has its place but only as a book of reference.

The material in these clinics is happily arranged and the author's style attractive. The numerous illustrations are excellent and together with the statistical tables add much to the value of the number. Doctor Smithies deserves praise for his versatility, thoroughness, and energy.

*Quarterly Medical Clinics, April, 1919, I, No. 2, Medicine and Surgery Publishing Co., St. Louis.

* * * *

ORGANIZATION OF PUBLIC HEALTH NURSING. By Annie M. Brainard.*

Since public health nursing is a profession still in process of evolution, with rapid changes taking place, any book on the subject of its organization must necessarily be of a tentative nature, rather than didactic. In this little volume, the author has tried merely to point out a few general principles which seem to her to be fundamental, and to describe various forms of organization that have been tried and found satisfactory. The rapid development in public health nursing resulting from the war makes it necessary for the public health nurse to organize her work efficiently. The author, after long experience in the public health nursing world in a city notable for its organized health effort, is well qualified to state the general principles of efficient organization as well as to place before the novice valuable suggestions regarding simple matters of detail.

The importance of the public health nurse having some form of organization behind her, no matter how highly trained she may be, is first brought out by the author. The organization back of her may be either public—that is, municipal, state, or federal; or it may be private—that is, supported and controlled by private individuals. It may be very simple or very complicated; an independent organization or a division of some other organization. The qualifications of the public health nurse are stated by the author, as well as the fundamental principles which she should keep in mind.

In the chapter on "Forms of Organization," some of the principal forms of organization which have been tried and found satisfactory are outlined. Five charts of organization plans present the subject in a helpful, graphic way. How to organize public health nursing in a new community is described, with suggestions as to the personnel and duties of the board of directors and the various committees—finance, nurses, and supply. The sections on records, statistics, and reorganization contain illustrations of history charts and different methods of reorganization.

*The Macmillan Co., New York, 1919, $1.35.

The book, which is one of a series of public health nursing handbooks, should indeed be a practical aid to those interested in public health nursing, whether from the standpoint of the public health nurse herself or the community about to employ one.

OCCUPATIONAL THERAPY APPLIED TO RESTORATION OF FUNCTION OF DISABLED JOINTS. By Bird T. Baldwin, Major, S.C., U.S.A. Director of Occupational Therapy and Chief Psychologist Walter Reed General Hospital.*

This work is a preliminary report on the aim, scope and methods of one phase of occupational therapy as worked out inductively at the Walter Reed Memorial Hospital.

Occupational therapy is defined as a purposeful, remedial activity adapted to each particular case, and directly encouraging voluntary efforts and personal initiative on the part of the patient. The workshop type of therapy has an added value in that the patient constitutes a part of a social group and the product of his activities has an economic value, which is encouraging and inspiring to the patient.

TEACHING THE SICK. A Manual of Occupational Therapy and Re-education. By George Edward Barton, A.I.A., director of Consolation House, President Consolation House Convalescent Club, Inc., Clifton Springs, N. Y.*

This book was prepared by the author because there are almost no textbooks which meet the requirements of prospective workers who are filled with a sincere desire to teach the sick and find so many obstacles upon their attempts to do practical work. Its purpose, says the author, is "to give a clear, concise, and truthful account of what has been actually accomplished in the way of Occupational Therapy and Re-education—not only the accomplishments of the author himself for his own body, but also what that work has actually proved for others, both patients and pupils." The book is not limited to the needs of war, which, though great, have not exceeded the needs of peace.

The first chapter, "The Larger Problem," begins with the premise that if it is possible for a man to get sick by occupation, it must be equally possible to get well by occupation. The author considers this the foundation of his subject. "There are no more cripples except of the will," the author quotes from the German physician, Dr. Biesalski. Beneficial therapeutic effect must always be the first consideration. The convalescent man has one advantage over his normal brother in that he has time—literally, "time to burn." The sick man must be trained to make articles which can be put upon the market in a legitimate way without interfering with the marketing of the normal workman's output. The importance of strengthening agricultural education is emphasized by quotations from a French pamphlet by Professor Jules Amar, in which he calls attention to the advantages of agriculture both for the sick man himself and also for his country. The chapter concludes with an explanation of the Consolation House method, and the statement that the great fundamental upon which re-education rests is "not the making of an object, but the making of a man."

The second chapter, "Teaching the Sick," gives various suggestions as to the line of work best adapted to the sick man. It discusses particularly mechanical drawing, chip carving, modeling, and wood working.

The final chapter, "Vici," includes a number of letters in the possession of Consolation House, which show at first hand the accomplishments of the writers and their gratitude for the aid given them in learning a trade after the loss of their eyesight.

THE FUTURE OF MEDICINE. By Sir James Mackenzie, F.R.S., M.D., F.R.C.P., LL.D.Ab. & Ed., F.R.C.P.L., (Hon.) Consulting Physician to the London Hospital.*

The whole book is an argument for a more scientific basis of medical research, a warning against certain present tendencies to place implicit trust in mechanical laboratory methods, to the neglect of the subjective symptoms, and is a plea for the consistent training of the clinician who ties up the physical findings with the actual observation of the patient so as to assess the real value of any given symptom.

With the premise that "if a problem is to be solved the nature of the problem and its difficulties should first be comprehended," Mackenzie undertakes a review of the medical situation as it stands today.

"Medicine has advanced so far," he says, "that for the study of disease after the patient has died, we find institutions magnificently equipped, presided over by men of great experience and training; for patients suffering from the advanced stages of disease, we have great hospitals, with staffs of skilled physicians, surgeons, and specialists. If we seek to find out what are the facilities for the detection and cure of disease in the stage when it has not damaged the tissues, we discover that little consideration is given to this aspect of the matter. . . . Few or no attempts are made to train men for the detection of disease when there is hope for cure." The surgeon, according to his thesis, may be said to flourish on the failures of the clinician.

Graphic comparison is made between the causes for which 1,000 consecutive patients sought medical advice and the causes of deaths in England and Wales in 1912. Evidently the diseases that weaken the community are not those of which the people die. "The progress of medicine has had little effect in preventing the occurrence of the most common diseases." To achieve the aim of medicine, disease must be recognized early, and all phases of its life history must be observed. Manifestly the only person who can do this is the general practitioner.

The complaint is made of medical education that it has an imperfect conception of the aim of medicine. The student is trained in methods needlessly complex. The dominant idea today leads one to depend upon the revelations by some mechanical contrivance devised in the laboratory of the signs of disease which can be detected only by the trained senses of a skilled examiner. The idea of specialism dominant today darkens the understanding with a cloud of detail and under this conception the vast bulk of suffering humanity can never get adequate attention.

The next thing the discoverer of a mechanical device has to do after he has recognized its use in clinical medicine is to get rid of it in practice and by research, according to the "Law of Associated Phenomena" the immediate objects are to discover (1) the mechanism of the production of a symptom, and (2) the determination of what bearing its cause has on the patient's future.

Application of these principles is made to the clinical researches of the author in affections of the circulatory system. As well qualified as any at the outset of his medical career, he soon found himself unable to recognize the maladies in many of his patients. In the main they

*Walter Reed Monograph, Walter Reed General Hospital, Takoma Park, Washington, D. C.
†W. B. Saunders Co., Philadelphia, 1919, $1.50.

*Oxford Medical Publications, London, 1919.

presented no gross physical signs, and he was unable to appreciate the subjective symptoms, and for most of these problems he found no help in the literature. Details of a systematic investigation of the patients' sensations are set out in chapters on "The Investigation of Pain," "Irregular Heart Action," "Auricular Fibrillation," and "Observation on the Effect of Drugs," work which constitutes the basis for accepted procedures in heart conditions.

Generalizations from these special studies are drawn in succeeding chapters which suggest similar principles of research in other fields. The book is a very thoughtful consideration of many phases of the practice of medicine. Without incriminating any one person or any school, he holds that present conceptions of medicine are subject to revision if medicine is to evolve as a precise science.

The work reported is of the utmost value. When all is said, the method is the man. The man whose interest in his work and concern for his patient leads him consistently over a period of twenty years to amass records, train his sense perception, and correlate findings is the man upon whose clinical judgment it is safe to rely, and the type of general "practitioner" and "teacher" too rarely encountered. In the hands of such men the "Future of Medicine" may be safely entrusted.

INDUSTRIAL NURSING for Industrial, Public Health and Pupil Nurses, and for Employees of Labor. By Florence Swift Wright, R.N., Bureau of Child Hygiene, New Jersey State Department of Health; Formerly Secretary of the Benefit Association of the Employees of John Wanamaker, New York; and formerly in charge of Industrial Nursing for both the Cheney Brothers Silk Mills and the Clark Thread Company.*

Procedures in industrial nursing must of necessity be flexible. Modification is required as each industry presents a separate problem, and future industrial and social development must be provided for. Certain standardizations, however, in methods, records, and equipments will make for efficiency.

In the preparation of this work Miss Wright has drawn upon the experience of many industrial and public health nurses, and she has appended a list of the sources of information and a general bibliography which will be of great value to nurses in this field or to employers instituting nursing service. Usually a department of nursing is introduced into an industry for a specific purpose, and its scope depends upon the department in which it is engaged. This work indicates what need be looked for in personnel, and the possible scope of its activities.

Chapters are devoted to the development of industrial nursing; the qualifications and training of the industrial nurse; the principles of industrial nursing; the relations of the industrial nurse to her fellow workers, and to the community; the first aid nurse; the visiting nurse; and to details of equipment. Under "The Day's Work" and "Records and Reports" the basis of adequate records is discussed.

Where an industry is responsible for the growth and existence of a town, the activity of industrial nursing may be expanded to form what practically constitutes a nursing center, in which event special training from the social viewpoint may be a requisite. Public Health work may be necessary; visiting nursing is desirable; pre-natal supervision, the industrial day nursery, mother clubs, and instruction in home problems may well be included in the work. The necessity is pointed out of supervision when the work of two or more nurses is definite and distinct. The work should be planned, and one person should direct all nursing and allied activities.

*The Macmillan Company, New York, 1919.

DISEASES OF OCCUPATION AND VOCATIONAL HYGIENE. By George M. Kober, M.D., LL.D., and William C. Hanson, M.D.*

When a book contains as much good material as is present in this volume, the reviewer should be satisfied with beginning and ending his review by the statement that it is an excellently well done and serviceable work. However, to do justice to this book it is only fair to state that it contains practically all that is known of this most interesting subject and that the contributions are by men of accepted reputation in the lines on which they write. The prefatory remarks give a brief historical review of the high lights in the development of interest in occupational and vocational diseases with a special division devoted to the progress of industrial hygiene in the United States. The aim of the editors has been the presentation of the basic data concerning the diseases of occupation in such a way as to render them available not only to physicians but also to employers, employees, efficiency experts, public health officers, and legislators. The book is divided into three general parts, dealing first with the specific and systematic diseases of occupation, second with the etiology and prophylaxis of occupational diseases, and, third, with the legislation and governmental study for the prevention of occupational diseases. The reader can look up lead poisoning, the method of preventing lead poisoning, and the legislative and other measures that have been framed to control lead poisoning. He can look up the dangers of any particular industry. He can study the health of women wage earners. He can get the symptoms of any form of poisoning. In fact, he can get almost everything he wants from this book.

THE STORY OF MILK. By Johan D. Frederiksen, graduate of the Royal Danish Agricultural College, author of "Cheese Making in America," etc., general manager of Chr. Hansen's laboratory.†

"The Story of Milk" fills the long-felt want for a concise handbook covering this subject for the use of the student of home economics and the daily worker, as well as the expert. The institutional dietitian will also find many helpful suggestions offered. After a short historical sketch of milk and its products, a chapter is given to the Production, Composition, and Characteristics of Milk. This includes the subjects of dairy cattle, methods of testing milk, ferments, and pasteurization. The second chapter, on "Milk Supply and Creamery Products," first considers the subject of the purity of the milk supply; then the products—cream, ice cream, butter, buttermilk, and fermented milk. Formulas for making ten gallons of finished ice cream, of many different varieties, are included, as well as recipes for smaller amounts.

The subject "Cheese" is taken up at some length, many of the pages having been published in 1918 as a separate pamphlet for use in the Food Conservation campaign. The factory system for making cheese, with and without rennet, as well as making cheese on the farm, is described. "Milk as a Food" first considers classifications of nutrients, then the care of milk in the house, and milk for infants and growing children, with recipes for infant food.

The last chapter, "Milk Cookery," which was written and classified by the author's wife, is very practical, and will be useful to housekeepers and students of domestic science. The recipes, which are for the average family, include a variety of milk dishes, such as soups, creamed dishes, cheese dishes, salads, sandwiches, breads, puddings, and beverages. Much of the data and illustrations were

*P. Blakiston's Son & Co., Philadelphia, 1916, $8
†The Macmillan Co, New York, 1919, $1.50.

obtained from the bulletins of the Department of Agriculture at Washington and the Dairy Schools at Ithaca, N. Y., Madison, Wis., and Ames, Ia. A brief bibliography of standard dairy literature is published. The book is interesting and readable, bringing the latest results of technical knowledge to the student, housekeeper, or anyone interested in the composition and use of milk, from the milking of the cow to milk cookery.

MODERN DENTISTRY FOR THE LAITY AND INDUSTRIAL DENTISTRY FOR THE CORPORATION.

By Alfred A. Crocker, Cincinnati, Ohio.*

This little volume consists of a number of short essays on dentistry and its application to individual welfare and industrial efficiency. The author deals with the importance of proper care of the teeth in relation to the health of every individual; he also lays stress on the necessity of corporations realizing what a large part the teeth play in the general health of their employees. The idea to follow in regard to your teeth, he says, is the prevention of decay, and this requires visits to the dentist at least twice a year. In order to insure the proper care of teeth on the part of employees, the best plan for the corporation to follow is to install a dental clinic, similar to the medical department now almost indispensable in large corporations. The function of the dental clinic is not to treat the teeth of the employees but simply to examine them and recommend the treatment necessary so that the patient may go to his family dentist immediately. Many companies do not absolutely require this examination twice a year, but find that the employees are glad of the opportunity, and willing to take advantage of it. As for the value of this plan to the corporation, "corporations installing dental service for employees are taking a step for economy in manufacturing, conservancy of manufacturing hours, and maintenance of health of operatives." The importance of proper care of the teeth has been emphasized by preventive dentistry and oral hygiene during the war, since the United States Government required every recruit for the army or navy or aviation corps to have his teeth put in good prophylactic condition. The last essay, "Tooth Troubles," gives an idea of "what prevention prevents." A list of actual requirements for establishing clinics concludes the book. The essays, which appeared originally in various magazines, are written in such a way that the average person can easily and quickly read them. The few technical terms which occur are defined. The book is dedicated to "the dental profession, whose avowed purpose is the prevention of decay and preservation of the teeth of the human race."

AMERICAN ASSOCIATION OF ELECTROTHERAPEUTICS AND RADIOLOGY

At the recent annual meeting of this Society the following officers were elected for the year 1919-20: President, Dr. William Martin, of Atlantic City; vice-presidents, Dr. Virgil C. Kinney, of Wellsville, N. Y.; Dr. William T. Johnson, of Philadelphia; Dr. S. St. John Wright, of Akron, O.; Dr. Mary Arnold Snow, of New York; and Dr. John H. Burch, of Syracuse, N. Y.; secretary and registrar, Dr. Byron Sprague Price, of New York; treasurer, Dr. Emil Heuel, of New York; board of trustees, one year, Dr. J. Willard Travell, of New York, and Dr. Frederic deKraft, of New York; two years, Dr. Frank B. Granger, of Washington, D. C., and Dr. Frederick H. Morse, Boston; three years, Dr. William L. Clark, Philadelphia, and Dr. Edward C. Titus, New York.

*The Samuel A. Crocker Co., Cincinnati, Ohio, 1919.

QUERIES AND ANSWERS

PAY OF HOSPITAL ROENTGENOLOGIST

To the Editor of THE MODERN HOSPITAL:

What is the most satisfactory arrangement for paying roentgenologists in hospitals, (a) straight salary, (b) percentage basis, (c) part salary and part percentage?

The question ought to include another alternative, namely, part salary and the privilege of doing private x-ray practice, utilizing the hospital plan. A number of institutions have such an arrangement with roentgenologists. A hospital having nearly all free or only part-paying patients will usually have to make its arrangement with the roentgenologist on a straight salary basis. The percentage basis is to be discouraged as it does not give the hospital a sufficiently dignified and complete control of the work in most cases. The straight salary plan is theoretically the most desirable, but it is very often difficult to secure the services of a sufficiently competent man without paying a high salary. The increase in number of x-ray men, which may be expected within the next few years, owing to doctors receiving x-ray training during the war, may possibly make it less difficult to secure young men well trained in roentgenology who will work for several years on a straight salary basis.

For a great many hospitals the plan of paying a certain fixed salary and allowing the roentgenologist a definite share of the income from paying patients will work well. In hospitals where the x-ray man is so well known as to attract many private patients to come to him as a consultant, he may be permitted to have the use of one or two or more beds for his private cases for diagnostic purposes, receiving whatever fee he may himself arrange with them, as any private physician would. This plan, however, can only exist in exceptional hospitals. For the average hospital of the present day, which does a large amount of work for private and part-paying patients, the plan of part salary and part percentage will usually work to the best advantage. The amount of the salary should be sufficient to make the roentgenologist contented to do any amount of non-paying work for the hospital or dispensary cases which the needs of the institution demand.

HOSPITAL IN SPRINGFIELD FOR RETURNED TUBERCULOUS SOLDIERS

A special hospital for the care of returned tuberculosis soldiers has been established in Springfield, Illinois, on account of the crowded condition of most of the general hospitals and tuberculosis sanatoriums of Illinois. The hospital, which will be known as the "Homestead," offers an immediate capacity of thirty-two beds. It will be operated under the same medical and nursing service as that of the Springfield Open Air Colony. The "Homestead" occupies the home of the late Stephen T. Littler, which is located in the central part of the city.

LETTERS TO THE EDITOR

TRAINING FOR HOSPITAL EXECUTIVES

To the Editor of THE MODERN HOSPITAL:

I was much interested in the two editorials which appeared in the November issue of THE MODERN HOSPITAL.[1] I am not of the opinion that the graduate physician should monopolize the field of hospital management. In view of the fact that non-medical administrators are successfully operating hospitals, a statement to the contrary would be foolish indeed. In the light of past and present experience, I believe that even the most biased of medical superintendents would hesitate to say that none but physicians were qualified to be hospital administrators. It is probably true that because non-medical executives have primarily been successful in the smaller hospitals, we have come to look upon such institutions as properly in the field of the nurse or non-medical administrator. There are, however, a number of successful non-medical superintendents to-day engaged in the larger hospitals, and size alone should not be the reason for limiting the scope of their activity.

The medical graduate, possessing the "spirit" of the physician, more readily realizes the fact that hospitals are primarily organized and operated for the benefit of the patient and that their various functions must be exercised with a view to serving the patient. The physician can, because of his education and training, more readily answer the innumerable inquiries and care for those strictly medical matters that rightfully come to the hospital executive. His relation with the professional staff can be more intimate. For these and many other reasons, I believe you will agree that the medical superintendent is the superior of the non-medical executive, providing both have the same business and executive qualifications. I do not believe the "traditional medical course" indispensable but I do believe that for the best interests of the patient and of all others concerned, the superintendent should be able to see things from the physician's view-point, and this I fear is lacking in most of the non-medical executives. That this view-point and "spirit" can be given them in a brief intensive course, I am not prepared to say. I feel sure, however, that it cannot be given in one year, if in that year the student is also expected to cover the course we have outlined. No doubt, a course containing a series of lectures, upon subjects such as History of Medicine, Medical Ethics, Medical Progress and Research, Relation of Patient and Physician, would be very beneficial.

Should our later experience develop the need for the addition of medical subjects, we will have no hesitancy in incorporating them in the course, in order that those non-medical students be given the benefit of as complete a course as possible. It may be that future development will require the addition of another year to the training. . . . . I am of the opinion that while the "traditional four year medical course" is not an indispensable qualification of a hospital superintendent, it is one to be highly desired. Executive ability, business training, and common sense are, I believe, more important.

A. C. BACHMEYER, M.D.,
Superintendent, Cincinnati General Hospital.

1. This letter was written in reply to the editorials entitled "A Training Course for Hospital Executives," and "Is the Traditional Medical Course Indispensable for Successful Hospital Administration?" which appeared in the November issue of THE MODERN HOSPITAL. In the second editorial these questions were raised and thrown open for discussion: Will it not be incumbent on the University of Cincinnati, through its medical college, to add to the course as at present outlined a wide range of subjects distinctly medical in character, which will give to the non-medical student those elements of medicine rightly regarded as essential to successful hospital administration? Would not a year's intensive study of the broad essentials of medicine similar in purpose to the year's intensive study of the essentials of hospital and business administration which Doctor Bachmeyer has inaugurated, suffice?

PREVENTING FALLS FROM WINDOWS*

To the Editor:—The article entitled "Fatalities in Hospitals Caused by Patients Falling from Windows"[1] (*The Journal*, Aug. 23, 1919, p. 604), tempts me to describe a scheme we have used in the More Hospital for a number of years to lessen the opportunities for delirious patients to escape from the hospital.

We installed a special enunciator in the main hall near the general service one. This special enunciator has a loud bell, differing in tone from the other. From this enunciator, concealed wires extend to a small copper plate in the baseboard near a corner in each room and ward. If a patient becomes delirious, his bed is rolled into the corner of the room or ward, and an electric mat about 3 by 5 feet in size is placed in front of the bed and connected by wires to the copper plate in the baseboard. Over this is placed a common rug. Any pressure, as a nurse or patient stepping on the rug, causes the bell attached to the special enunciator to ring, and is a warning to the nurses.

In a small hospital, especially, all nurses can be readily informed that there is a delirious patient in a certain room, and at the sound of the bell it is seldom necessary to go first to the enunciator to see where the call comes from. Our experience has been that the nurses are alert and respond promptly to this emergency call. I, myself, have been on the floor when the bell sounded, and have seen two or three nurses meet at the patient's bedside before he had time to leave the room. No delirious patients have escaped from the hospital or been injured.

C. W. MORE, M.D., Eveleth, Minn.

*Reprinted from Jour. Am. Med. Assn., Oct. 25, 1919, Vol. 73, p. 1303.

[1] The frequency of the occurrence of patients falling or jumping from hospital windows was discussed in an editorial, "Some Practical Measures of Death Prevention," which appeared in the November, 1919, issue of THE MODERN HOSPITAL.

THE MODERN HOSPITAL

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HOME FOR TUBERCULOUS ON SAN FRANCISCO BAY

ARROYO SANATORIUM, LIVERMORE, ALAMEDA COUNTY, CALIFORNIA

Part I.—Its Architecture and Environment. By Henry H. Myers.

Part II.—Its Medical Therapy. By Chesley Bush, M.D.

Part III.—Its Occupational Therapy. Olivia Lee Tiedebohl.

SET in the foothills overlooking the Livermore Valley and about thirty-five miles inland from the fogs of the San Francisco Bay region lies Arroyo Sanatorium. The name and the place little suggest the public character of the institution, for it is a county hospital, taking the tuberculosis cases of Alameda County, that large political unit which contains the cities of Oakland, Alameda, and Berkeley, on the east side of San Francisco Bay. The buildings are located on a hillside of the Arroyo del Valle Creek; hence the name. With a winding road giving a gradual ascent through a beautiful pear orchard to the main buildings, and with an altitude of a thousand feet in a county that is practically at sea level, the choice of location is, indeed, a commendable one. The approach after nightfall with the thousand little electric lights twinkling in the distance gives the impression of a fairy castle.

The buildings are grouped in two units to good advantage. Surrounding the service building are the medical and administration building, the main infirmary, and two dormitory buildings. Higher up on the hill and removed from within sound of the first unit lie the children's building, the nurses' home, the female employees' building and the male employees' building. The latter contains a kitchen and dining rooms for the children and staff. Each unit is complete within itself,

The main unit of the Arroyo Sanatorium, Livermore, Cal., which consists of infirmary, service buildings and dormitory. The buildings are beautifully located on a hillside and grouped in two units. The children's unit is higher up the hill.

but for administrative purposes all are operated conjointly to save expense. The second unit has just recently been completed, and to date the main service building has taken care of both patients and staff.

The project is still in the formative period, for although the initial building is completed and in use, other buildings are now in course of construction, while several more are planned for the immediate future.

PART I.—ARROYO SANATORIUM—ITS ARCHITECTURE AND ENVIRONMENT

By HENRY H. MYERS, Architect

THE idea of a separate institution for tuberculous patients was the natural outcome of a campaign by the California State Board of Health for bettering the conditions of these patients in their original surroundings at the county's general hospital near San Leandro, Cal.

The selection of the new site met with instant favor from Mrs. E. L. M. Tate-Thompson, who, as director of the bureau of tuberculosis of the state board of health, had conducted the fight for betterment. Indeed no one who has visited the site can fail to be strongly and favorably impressed. Consisting of about fifteen acres of wooded hill land, it lies at the southern rim of the Livermore Valley, with a sufficient elevation to give a complete outlook across the valley floor, while in the immediate foreground is the picturesque, tree-fringed Arroyo Valle Creek, from which the sanatorium gets its name.

In planning the buildings, it was strongly impressed upon the architect that the appropriation for the work must be largely used for buildings, and the grading expense kept as low as possible. For this reason the buildings on the property have been divided into two groups to accommodate the available building locations.

In one of these groups are located all the buildings for housing and care of adult patients, while in the other group are the buildings for housing nurses, staff, and other employees, as well as a building for tuberculous children.

The orientation of the site places the apparent frontage of the buildings to the north, overlooking the valley, but necessarily this has been subordinated to some extent so that full advantage of the southern exposure may be taken.

In the lower or patients' group are located five buildings, consisting of a combined medical and administration building, an infirmary building for bed patients, two dormitories for ambulatory patients, and a service or domestic building containing dining rooms and kitchen.

The nurses' cottage has ten bedrooms, each provided with a sleeping porch.

In the upper group are located the children's building, nurses' cottage, women employees' building, superintendent's dwelling, and combined service and male employees' building, in which are the sleeping quarters for male employees and the kitchen and dining room for the staff and employees.

The relative location of buildings in the lower group may probably be better understood if the reader will picture in his mind axes lines conforming to the letter T, the stem of the letter representing the main axis running approximately north and south, on which is located the service building and the two dormitories, while on the cross bar of the letter are located the infirmary and medical building (the latter balancing on the main axis), and a location for a future additional infirmary building.

The site of this group while reasonably level has a sufficient slope to the north so that from the verandas of the dormitories the occupants may readily see over the roof of the infirmary building and retain a view of the valley. It is this feature of the site that gives it its charm. From no point is the valley view wholly shut out. Equally charming, however, is the southern view toward the wooded hills and canyons which form the background of the group and protect it on three sides from winter storms and wind. It is in this background that the upper group of buildings is placed.

In construction, all the buildings of the two groups, excepting the medical building, are of frame, but to eliminate as much fire hazard as possible they are finished on the exterior with cement stucco and with roofing of asphalt felt with a crushed red brick covering.

The medical building, on account of its position between the present and future infirmary buildings, is constructed as a fire stop with masonry walls. All cementing on walls is painted in light greyish tones with wood trimmings in gray green.

The medical building consists of two stories and basement. On the first floor are the administrative offices and public reception room with private offices and examination rooms for the superintendent, resident physician, and head nurse. On the second floor are the x-ray department, operating room, preparing and sterilizing room, drug store, eye, ear, nose, and throat room, and dentist's office and laboratory. In the basement are the morgue, autopsy room, and laboratories.

The infirmary building is two stories in height, with the power plant in the basement. This building is divided into three sections. The central section on each floor has its nurses' station, diet kitchen with locker rooms, bathroom, and toilets, as well as record rooms, medical office, and sewing room. The westerly section is subdivided into eleven private rooms on each floor, while the easterly section has two open wards

The women's ward in the North Dormitory, which affords an enchanting view of the hills.

The Children's Building is far up the hillside, near the nurses' home. It is a great, roomy place, with wide sun porches.

on each floor, of five- and six-bed capacity each, with adjoining isolation rooms.

All rooms for patients, both in single rooms and wards, are made as open as possible, with all openings screened, while around the entire building are wide, open, covered porches with canvas awnings or drop curtains for use in stormy weather.

Dormitories for Male Patients

The two dormitories are designed for male ambulatory patients, but pending the construction of the second infirmary building are being used partly for bed patients. They are one story structures containing two wards of twenty beds each. At the center of the building is a large, well lighted, steam-heated living room or day hall, with an open fireplace. The wards are at opposite sides of the day hall and connected with it.

The wards are open on the north and south sides, protected with wire screening and have porches ten feet wide the full length of each side. The north porches have permanent roofs, but the southerly porches are arranged with canvas awnings for protection against sun and rain, which can be converted to drop curtains in stormy weather, effectually protecting all openings.

Connecting with each of the wards at the opposite end from the day hall is a large, heated dressing room with lockers for patients' clothing, and fitted with basins, dental lavatories, and drinking fountains. Connecting with each dressing room is a semi-detached toilet room, bath and shower room, furnished with modern plumbing, magnesite floors, and enamel cement walls.

The service building in the lower group contains the large kitchen, serving room, and dining rooms for male and female patients, together with storeroom, refrigerator room, and ice plant. The service is of the cafeteria system with double steam serving tables and separate entrances and service to the male and female patients.

In the upper group, the children's building is a two-story structure planned for the boys on the second floor and girls on the first, with an infants' ward and nurses' room in connection. Two wards for boys, with a capacity of twelve beds, are provided. The girls' ward contains six beds and the infants' ward four beds. Besides these wards,

A view of all the big outdoors is the constant delight of this patient in a private room in the infirmary.

provision is made for diet kitchen, nurses' station and record room, toilet and bathroom, and an open-air class room.

The nurses' cottage contains a large living room and buffet kitchen and ten bedrooms, each provided with a sleeping porch and with baths, toilets, and the usual conveniences.

Roomy Building for Employees

The women employees' building has two stories, the first floor containing four suites of bedrooms, bath, and sleeping porches. The second floor contains eight single bedrooms with a large living room, toilets, bath, and showers.

The service and male employees' building is two stories in height and contains besides the kitchen, serving room, and store room, three large dining rooms and sleeping quarters for seventeen employees, together with tub and shower baths, and toilets. A recreation room is provided in connection with the bedrooms.

The interior of all structures, with one or two exceptions, are plastered. All toilets and baths have magnesite or tile floors, and are wainscoted with enameled cement, as are all kitchens and

serving rooms. All other rooms and corridors have maple floors, and all interior finish throughout is of Douglas fir. Some parts are finished in white enamel paint and others with stain and varnish.

Hot water and steam are distributed throughout the grounds and supplied to each building in both groups. All parts are electrically lighted and have intercommunicating and long distance telephone connections.

The future building program includes the construction of an additional eighty-bed infirmary, a detached power house with laundry, shops, and garage, and the development of an improved water supply, reservoirs, and a fire protective system.

PART II.—ARROYO SANATORIUM—ITS MEDICAL THERAPY

By CHESLEY BUSH, Medical Director

PATIENTS of Arroyo Sanatorium must be residents of Alameda County for one year before being eligible for admission. This admission work has been done by the Alameda County Society for the Study and Prevention of Tuberculosis, which maintains offices and clinics in Oakland. There patients are recommended for admission and patients are followed up after discharge—a regular monthly visit being made to the clinic by those discharged for examination or advice. Recently the various charitable and medical organizations have grouped themselves together in a Public Health Center, with which the

This is the corner of the infirmary where the nurses keep their records of cases. Note the charts on the wall.

Anti-Tuberculosis Society will be allied. This organization will have branches in the various parts of the county, and all cases of tuberculosis applying will be followed up so that the work of the sanatorium will constantly represent the result of an up-to-date survey of the county. Within the last few months, a social service department has been organized within the sanatorium itself, for the study of the patients' special problems and home conditions. This department is in charge of Mrs. W. E. A. Young. There will shortly be one hundred and fifty patients in the institution.

The culinary department for the patients is operated on the cafeteria plan. Those patients who are able to go to their meals enter the service building hallway, where they receive trays and wrapped knives, forks, and spoons. Then passing along a steam table in the service room, they pick up their food just as in a city cafeteria, and enter a dining room. There they are seated at small tables with vitrolite tops, four to a table. On passing out they leave their paper napkins in a special bag maintained for that purpose at the doorway. This bag is afterward taken to the incinerator by one of the patients. Those patients who are not temperature free and who are not allowed to go to their meals are served from diet kitchens, one on each floor of the infirmary building, and one in the north dormitory building. The cafeteria plan has proved very cleanly, feasible, attractive, and labor saving. The one objection is that patients are apt to hurry through their meals in order that the various courses may not get cold. The culinary department is under the management of Miss Alice Heinz, a very competent, trained dietitian.

The nursing staff is in charge of Mrs. Tamar Milne. There are a dozen graduate and practical nurses on the staff. Under the permission of the

The patients' dressing room in the North Dormitory.

From their beds, the patients in the infirmary have an alluring view of the hills.

State Board of Health and with the cooperation of the Bureau of Tuberculosis it is planned to institute a training school for young women who have been tuberculous or who desire to prepare themselves for work in other state subsidized hospitals. The nurses' home is a large, airy building, with a central sitting room and large fireplace. The rooms open with French windows upon sleeping-porches where the nurses can roll their beds at will. The building is at least one-quarter of a mile from the main institution so that the nurses are in no way bothered by the patients.

Patients Publish Paper

The necessity of keeping up the morale of the patients is recognized and every effort is made to stimulate outside interests. A little monthly paper called *The Stethoscope* is edited and published by and for the patients. The newspaper office is in the basement of the south dormitory building and is a very busy place.

Plans are under way for installing an electrically driven printing press, as an adjunct to the occupational work. The large, delightful room shown in one of the pictures is used as an amusement pavilion, and a moving picture show for which films are supplied free by the county, is a regular weekly program. There is a piano, a phonograph, and a number of card tables, and amateur entertainments are brought out from Oakland at various intervals during the year.

Occupational Therapy Inaugurated

The occupational therapy department under the auspices of the California Tuberculosis Society and under the direct supervision of Miss Olivia Lee Tiedebohl has been in operation since June 1. To date no attempt has been made to do vocational work other than having the patients select the various lines of occupational work which appeal to them. Those having artistic talents have been led along such lines, and several workers with oil colors are now producing work of considerable merit. Reed basketry has occupied the attention of the men who are fitted for that sort of work; raffia and matting basketry have been studied by a number of bed-patients, and bead necklaces have inspired the interest of both men and women. Embroidery and crochet work, always favorite occupations with tuberculous women, have been further stimulated. Numerous articles produced by the patients have been sold, one-half of the money thus derived going to the patient, and the other half being used to purchase further materials. The work has psychologically been of great benefit to the patients. It is described in detail in the article which follows.

This showcase displays some of the artistic handiwork done in the occupational therapy department of Arroyo Sanatorium.

Individual medical attention is given each of the patients from the time of admission into the infirmary building until their discharge, and even afterward. As the physical condition of the patients improves within the institution, they are transferred from building to building until they reach a dormitory where no bed patients are kept and all must go to their meals. They then become the so-called "ambulant" type, but provision is made for taking care of them during "bad spells" by removing them temporarily to the neighborhood of a diet kitchen. All recognized methods of combating the tuberculous infection are used, and all sanitary precautions are taken to prevent droplet contamination while coughing. The sputum is carefully taken away to the incinerator regularly. Any violation of the rules by a patient is strictly watched and incorrigible patients are sent away.

Arroyo Sanatorium is a very good California

example of the county unit method of handling a state tuberculosis problem, and is rapidly becoming a model of its kind. Few weeks go by that Arroyo Sanatorium does not receive applications for admittance from people living outside of Alameda County.

PART III.—OCCUPATIONAL THERAPY AT ARROYO SANATORIUM

By OLIVIA LEE TIEDEBOHL, Supervisor of Occupational Therapy

PERHAPS never before in the history of modern medicine has the subject of occupational therapy been given such close attention by the physician as today, especially as it is applied to patients in modern tuberculosis sanatoriums.

Occupational therapy was installed at the Arroyo Sanatorium last June, by the California Tuberculosis Society. It was put under the supervision of Mrs. E. L. M. Tate-Thompson, director of the Bureau of Tuberculosis of the State Board of Health. The writer, who is giving the subject unlimited thought and study in an endeavor to analyze it from every angle, was chosen director.

While occupational therapy or handcraft has been attempted in the past in tuberculosis institutions, it has met with comparatively little success, due perhaps to the lack of knowledge as to the proper procedure in applying the work to the requirements of the tuberculous, as well as ignorance of the proper type of work and the time limit for patients to be allowed to work. A tendency to overwork the patients has often caused complete abandonment of the handcrafts, while in truth occupational therapy was not at fault, but rather, poor judgment was exercised in directing the work, a thing which could not possibly occur if the subject were properly understood.

The physician and the aide must closely observe the effect produced upon the patient by the work, in order to ascertain the beneficial results. For it must be borne in mind that the work is being done for its therapeutic value, for the moral and mental uplift of the patients, and to bring to them comfort and cheer during the trying hours of convalescence.

In addition, the work by its very nature proves to be an asset to them in future years, inasmuch as it is both highly constructive and instructive in application. One of the principal aims should be to keep alive the patient's interest in life and its activities. To prevent any chronic apathy which might creep in during the long illness, he must be kept mentally fertile and happy during the months required to effect a cure. In no way

This recreation room has everything necessary for the enjoyment of the patients. They may read, listen to the phonograph, play the piano, dance, or simply sit by the grate with its cheery blaze.

is the work at Arroyo Sanatorium allowed to interfere with the close observance of rest hours.

Occupational therapy proves to be a great aid in helping to produce a higher morale in institutional life. In most cases at a county institution, it is the patient's first opportunity to cultivate his finer senses, as his love of the beautiful and artistic has necessarily been stifled in his effort to earn a living.

Subjects Carefully Selected

By careful selection of subjects adaptable to the physical condition and capacity of the individual patients, highly successful results may be attained. The teacher or aide should create a properly balanced interest and enthusiasm, and keep it stimulated by providing an attractive type of work. She should also assist in establishing an atmosphere of cheer which will divert the thoughts of the patients from physical, domestic and financial difficulties, and at the same time help to build that most wonderful of structures, character.

It has been aptly said by one eminent physician, "Making the cure in tuberculosis is not so much one of medicine as of character." Occupational therapy, carefully planned and judiciously applied, can be of inestimable value to the physician in his efforts to effect a cure. To cite one case under my personal observation: a man who was very much discouraged was admitted to the Arroyo Sanatorium and when asked if he would enjoy making a basket said, "Do you think it could possibly hurt me? Is there any danger of a fellow getting worse?" It was not difficult to appreciate his fear. I set about to cheer him, and we chatted and started on our way in basketry. Within a few days I observed a change in the man. He was quite my cheeriest pupil. He responded rapidly to the prescribed treatment of the institution, his progress is such that he is now an ambulant patient, and he has proved to be my most promising pupil in making beautiful baskets. While the condition of his lungs was not an alarming one, personally I believe that occupational therapy applied at the psychological, vital moment proved valuable in this case.

Summary of Course

Perhaps a brief *résumé* of the course and procedure of our work at Arroyo Sanatorium will be of interest. It has been our endeavor to teach subjects not very difficult or taxing, nor requiring a long period of time for completion, as this often becomes monotonous to even a normal person. Much care has been given to purchasing pretty and attractive materials, and a variety of subjects congenial to the individual tastes has been provided. To the extent of advisability, the patients are permitted to choose their own work and colors, no thought being made on my part to dominate their selection of colors. The selection is directed by the teaching of color harmony in a very elementary way.

Teacher Should Study Patient

A personal study of the patient will enable the teacher to select the proper article for the beginner, be it beads, baskets, or any one of the various subjects taught. A careful record is kept of work done and materials given out. At Arroyo Sanatorium seventy-five per cent of the work is done by bed patients. When teaching in the dormitories, while passing from bed to bed, ample opportunity is afforded to instruct the pupils in color, and to explain in a very simple manner the relation of colors one to the other, and color combinations. I endeavor to entertain the men by discussing current events, the origin and history of basketry or textiles, or even chatting about some local event—the main object being to hold interest and to give to the work that personal touch which wins confidence. The deepest pride is exhibited by the men in their work of making beautiful trays, close-woven raffia and matting baskets, book ends, and a variety of novelties; while the women show keenest interest in bead work, stitchery, hand-painting, and basketry.

The articles made have an intrinsic value and have found a ready market, in fact, we always have orders to fill. The sales of these articles have produced a marked effect upon the patients by creating enthusiasm and an incentive to continue the work. Morning classes for ambulant patients are held in the airy, sunny, recreation room, and in a short time the place has taken on the pleasant atmosphere of a studio. The work tables have homemade baskets upon them filled with flowers, and there is something very cheerful about the whole setting. A well appointed and attractive work shop is of inestimable value in this work.

Pupils Work One Hour

The classes are of one-hour periods, as pupils are not permitted to work beyond one hour, except when permitted by Dr. Chesley Bush, medical director. The patients chat and appear happy while at work, never gossiping or complaining about physical symptoms. The reed basketry which is being done by the ambulant men patients is most creditable. Waste paper baskets, firewood baskets, and charming flower baskets all are being made and sold, as well as

other novelties in wicker. The subjects being taught are all kinds of needlework, matting, basketry, raffia and reed basketry, textile weaving, jesso or polychrome work, chair caning, bead work, pingograft, water colors, hand-painting, and many lovely novelties. The articles are very well made and quite charming. Within a short time many subjects will be introduced, including classes in shorthand. bookkeeping, Spanish, and English.

Work Must Be Standardized

I insist that the work done be standardized, have a professional appearance, and be so attractive that the articles will sell on merit alone, and not for charity. It must be understood that an institution doing this work on any scale must necessarily dispose of its wares. This is by no means the object of occupational therapy, but why not have this a feature of the work? Does it not kindle a man's hope and often restore self-respect to know that, though handicapped, he has an earning capacity always, and is still capable of some usefulness? If we can educate the tuberculous patient, who perhaps has always engaged in manual labor and never can return to his former occupation, so that it will be less difficult for him to attempt a new field of labor better adapted to his condition, that education is surely of great importance. This training of the mind and fingers will enable him to enter a new occupation without serious difficulty.

Enriches Institutional Life

Occupational therapy therefore has a more important work to perform than merely to amuse the patient during a period of convalescence. The work must be given its proper place and dignity, since it is a progressive step in institutional life. The outlook is very promising and the work will be found to fulfill its mission if conducted along conservative and sensible lines. It has been of inestimable value in the military hospital, and should be made equally valuable in the civilian institution.

To-day

So here hath been dawning another blue day!
Think, wilt thou let it slip useless away.
Out of Eternity this new day was born;
Into Eternity at night will return.

Behold it afore time no eye ever did;
So soon it forever from all eyes is hid.

Here hath been dawning another blue day:
Think, wilt thou let it slip useless away.

Thomas Carlyle.

A view of the main unit which consists of the infirmary, service and dormitory buildings, and the beautifully laid out grounds with the background of hills.

THE HOSPITAL AND THE COMMUNITY*

By CHRISTOPHER G. PARNALL, M.D., Medical Superintendent and Director, University Hospital, Ann Arbor, Michigan

THERE should be a better understanding on the part of the general public of the problems and activities of the hospital, for such an understanding will lead inevitably to better service on the part of the hospital and to an increased efficiency which will show itself in better support from the people. The hospital will thus be enabled to meet more adequately the demands made upon it, and the public will come to understand the place the hospital should occupy in its everyday life.

The very word "hospital" implies a community interest. Originally hospitals were places for the entertainment of or shelter for guests. Later, the word was applied as a name to institutions for the refuge of the needy or infirm. Even now the word "hospital" is defined as an institution or place in which the sick or injured are given medical or surgical care, commonly in whole or in part at public expense or by charity. While the hospital has always commanded a certain degree of public interest, still it has usually been only a comparatively small group of people who have concerned themselves in the possibilities for service of such an institution and have contributed to its support.

Indifference of the Public

The general public has little knowledge, indeed, of the plan of operation or of the activities of the hospital. To most people enjoying reasonably good health, the hospital is simply a place where the sick are given medical attention. The real life of the hospital has never been revealed to them. They have had no occasion, personally, to inquire into the field of hospital service, and consequently when, finally, unforeseen illness comes to them or to their families, they are not prepared to realize to what extent the hospital may really become a part of their lives. Largely because of this semi-indifference of the public, the hospital has failed in its greatest opportunities and, as a direct result, the people have not enjoyed the service the hospital could well have furnished in the way of better health, increased efficiency, and comfort.

In this country, the early hospitals were established largely through private philanthropy and supported by voluntary contribution. These hospitals provided for the care of the indigent or the so-called "worthy poor," and most of them were fairly well administered. They rendered a distinct service in the care of the class of patients which they received. Little wonder, however, that the hospital, in the minds of most of the people, became a place to be avoided to the last extremity. The care at the best was only tolerable and the mortality was much higher than that of cases treated in private homes. This, of course, was inevitable when we realize that nothing was known of the cause of communicable dieases and infections and really it is a matter of some wonder that recoveries were as frequent as they were. The well-to-do, when ill, were attended in their homes. Aside from its function of caring for the sick within its walls, there was practically no attempt on the part of the hospital to extend its influence outside, at least to any great extent.

Growth of Dispensary and Clinic

Public dispensaries were established in a few instances, the Philadelphia dispensary being the oldest. Later, a dispensary was established in New York, and the Boston dispensary opened in 1796. The work of the early dispensary was limited entirely to the care of the poor who applied for relief. As the name implied, the chief function was the gratuitous furnishing of medicine. The clinic, having for its object the diagnosis of disease conditions, was a later development, having its origin in the old dispensary. Showing its limitations as a public health agency, it is interesting to note the rule of the Boston Dispensary, "that persons suffering from venereal disease or from the effects of alcohol should not be treated by the dispensary, as being the victims of their own sensual indulgence."

In the light of Dr. Richard Cabot's recent statement that, of one hundred and fifty or more known diseases, only six or eight are benefited by the administration of medicine, it can readily be seen that the real usefulness of the old dispensary was very limited indeed. However, as before indicated, the modern clinic has developed from the dispensary. Now, instead of supplying medicine, the chief function of the dispensary is to furnish accurate diagnoses of disease conditions and advice as to the best methods of living to overcome them.

* Medical lecture in summer school series, University of Michigan, July 15, 1919.

In 1800, there were three dispensaries in the United States. A century later the number had grown to approximately one hundred, and within the last twenty years the growth of the dispensary or clinic has been little short of marvelous. In 1915, there were five hundred and thirty-eight baby clinics and, at the same time, over five hundred clinics for the diagnosis and treatment of tuberculosis. Within the last two years, there have probably been more clinics established for the diagnosis and treatment of venereal disease than have existed in all previous time in the history of this country.

Organized Social Service Work

A comparatively recent addition in this country to the activities of the public dispensary or clinic has been the inauguration of organized social service work. This has been a most logical development and it is hard to understand why it was not put into practice much earlier.

Dr. Richard Cabot, at the out-patient department of the Massachusetts General Hospital, established in 1906 the first well-organized social service department in connection with a hospital in this country. Since that time social service work has been extended into the inside departments of a large number of hospitals as well as into the out-patient clinics. It is not sufficient to furnish only medical or surgical service to those who are unable to pay the fees of physicians. It is quite as necessary to rehabilitate the patient in an economic way as it is to alleviate his physical disorder. It is unsound economic doctrine to relieve or cure a patient of his infirmity only to have him go back to the environment which produced it, and which may reproduce it, requiring a return to the hospital for further treatment. A patient may receive treatment for venereal disease in a hospital or dispensary, but the case presents a social aspect quite as important as the individual disease condition and conservation of human life and happiness will depend not so much on what is done for the patient, alone, but also on what is done in the way of protecting his family and the community at large.

A mother, with, perhaps, a large family, who is partially disabled through illness, cannot leave her family to secure medical treatment or surgical operation unless provision is made for the care of the children, but her return to complete usefulness is a matter of prime importance to the community. Through the social service departments of numerous hospitals in this country thousands of such people have been returned to their surroundings as useful members of society. They have been recovered from conditions which formerly were hopeless and have been put upon a self-respecting basis. The social service worker in the hospital or out-patient clinic is an educator along the lines of better living and better health.

Under conditions existing today all over the country, the public has very little means of judging the professional qualifications of the physicians in any community. License to practice, all too frequently, means license as well to malpractice. How is the average person to know whether the man into whose hands he trusts his life is competent or not? There is no use attempting to conceal the fact that, often, the most incompetent are the most ambitious to do professional work for which they have had no training.

With all the advances of surgery in the last twenty-five years, there still remain numbers of half-baked surgeons who annually add to the toll of the grim reaper, literally, thousands of victims. Many of our hospitals, in effect, are the workshops of this class of practitioners, often not willingly so, but because there has appeared no remedy. Thus, the ideals of the hospital suffer, and very often, the institution is blamed for results over which it has had no control. It is true that the mortality in hospitals has very measurably decreased. Coincidentally, the hospital is becoming more and more recognized as the place to go when one is ill. But is the hospital doing its full duty in the way of protecting the public from incompetent medical practice? Certainly, progress is being made. Hospitals are realizing their responsibility, and many of them are taking steps to safeguard the interests of the patients who come to them for treatment. Those who have need of hospital care have a right to expect such service.

Standardization Next Problem

The subject of hospital standardization is the greatest single problem which confronts the hospital world at the present time. This movement, participated in by three great associations, namely, the American College of Surgeons, the American Hospital Association, and the American Medical Association, must certainly be productive of good. Hospital standardization, in effect, means nothing more than improved hospital and professional service. It means that the patient's interest must always be paramount to all other considerations. It means more careful diagnosis and more skillful treatment, both operative and non-operative. It will not be long before hospitals, in order to remain in good standing, must clean house of incompetents in all their departments and, particularly, in the professional staff.

Careful clinical records will be demanded. They will be preserved by the hospital for the advantage, not only of the individual patient treated, but for all of those who may come after, and to furnish material for scientific investigation into the cause of disease and the methods of cure. Laboratory facilities will have to be put into daily use. Men with qualifications other than political or social standing will constitute the permanent staffs of first-class hospitals. The staffs will be limited, and the hospital will admit only patients of staff members and will thus be enabled to stand sponsor to the public for a greatly improved type of professional service. If, for sufficient reasons, the hospital remains open for the general use of the physicians of a community, then it will be the duty of the hospital to prescribe the qualifications, supervise closely the medical work done in the institution, and guarantee to the public that physicians showing themselves to be incompetent shall be excluded from its privileges. The public has a right to such service on the part of the hospital and it behooves every hospital early to recognize its responsibility and to act accordingly. Of course, it is obvious that the hospital cannot control the practice of medicine in any given community, but it can exercise a most helpful influence over medical practice within its walls.

Hospital a Place of Training

As has been suggested in the foregoing, the hospital must be a place in which men are trained to render the first-class service which it seeks to assure. This means that recent medical graduates must grow up in the hospital, gradually taking places of greater responsibility, but always after proving their worthiness of the confidence placed in them.

Almost every hospital of any size maintains a training school for nurses. Some of the training has been most excellent, and some, on the other hand, has been little short of wretched. The hospital, as the result of conditions which it was often unable to rectify, has been forced to exploit pupil nurses and to require more in the way of service than it has given in the way of training, and the result has not been beneficial to the profession of nursing. With the present opportunities for nurses, the whole order must quickly change. The hospital that largely exploits will find itself without nursing service or with the lowest order possible under the laws regulating the registration of nurses.

Much has been said lately regarding the shortage of trained nurses—this despite the fact that there are probably more nurses in training than ever before. The shortage, however, is only relative. Nursing service, instead of being a luxury, is looked upon, even by those of moderate means, as one of the modern necessities. The fact is that there are not enough nurses to go around. A new public responsibility is thus placed upon the hospital. More nurses must be trained and a different training must be given. Individual patients in the future can not expect the undivided services of a trained nurse unless the illness is such as to warrant them. Patients who are not sufficiently ill to require hospital treatment may secure necessary nursing service by the hour. One nurse may thus serve many patients. This she can do if her whole time is given up to furnishing purely professional nursing service. If nursing under home conditions is not adequate, then the patient will go to the hospital. This, in the end, will mean better care for those who are sick and lessened responsibility and worry for those who are well.

Value of Group Practice

Under modern conditions, the medical practitioner finds himself confronted with a field so limitless that he may never hope to compass the knowledge of detail and technique required to cover it in all its extent. The family physician of the past was often an unusual man who grasped the essential, known details of all the branches of the healing art. But in recent times no single intellect has been able to comprehend it all, and so we have seen develop to a large degree specialization in medicine.

Specialization has almost come to be a fetish. Now, instead of knowing all there is to be known about all of the various branches of medicine, the up-to-date specialist knows nothing but his own. If we are clearing the Scylla of generalization, we are dangerously grazing the Charybdis of specialism and so a tendency of today is for medical practitioners of the highest type to group themselves so that the patient may have the judgment of a number of specialists, with a knowledge of specialized practice, and still with the safeguard of the opinion of many minds.

Group practice is nothing more nor less than what has been developed in the professional service of the up-to-date hospital or dispensary. Heretofore, such service has been available only for the poor. The very rich might secure a semblance of this service, but, after all, only a semblance, because the patient who is wealthy would be sent from one specialist to another, whereas the poor would have the benefit of a group consultation of these same men. The moderately well-to-do—the average citizen—must get along

as best he can. He cannot afford high-priced specialists and he is above asking for charity, but his day is coming. Voluntarily, groups of medical men are already demonstrating the practicability of group diagnosis and group treatment in private practice. The greatest surgical clinic in the world is founded on this principle but the whole world cannot go to Rochester, Minn., and so Rochester, Minn., is slowly coming to the world.

Hospital Natural Center of Group

In various ways, community health services and community health centers have been built up. The community health centers, established within recent years in a number of American cities, have been highly successful. While their scope is largely limited to purely preventive measures, still they have already proved themselves efficient agencies in the dissemination of knowledge of the cause and prevention of disease. The practicability of the plan already demonstrated, why should not the hospital maintain, as a part of its service to the public, a group of expert medical men qualified to give the best service to the public? The hospital becomes the natural center for such a group and, alive to its responsibilities, gives the most logical assurance that the highest type of service will be rendered.

The man of moderate means need no longer then look forward to a period of illness for himself or his family with the dread which now besets him. For a moderate fee in the way of health insurance, the services of an expert group may become obtainable. He may avail himself of the privileges of the poor without becoming pauperized. He may enjoy the privileges of the rich without exceeding the limits of his income.

Members of the hospital group, on the other hand, carefully selected for their several abilities, may devote themselves unreservedly to the work for which they are best fitted. They will render a quality of professional service not otherwise possible. The hospital will become popularized as the results become known. The practice of group medicine properly implies the service of a number of experts, each skilled in his own particular line, in the diagnosis and treatment of disease.

As before indicated, group practice is a plan developed in order to overcome the chief objections to special practice. It recognizes the province of the specialist and realizes that specialization is necessary in order to master the multitudinous details in the various fields of medical practice. The group thus becomes a cooperative body. The diagnosis or the treatment, as the case may be, becomes a composite diagnosis or treatment and not a series of individual opinions of a number of specialists. The specialists act in conjunction and not as mere individuals. In this way the patient is assured of a complete examination and is protected against any probable mistake. One member of the group acts as a check on every other member, and, if one man is inclined to overestimate his particular specialty, this tendency is neutralized by other members of the group.

In order to secure the smooth operation of such a plan, it becomes essential that the members of the group surrender the individualistic prerogatives so tenaciously adhered to by the specialist of recent years and devote themselves to a coordinated method of procedure, designed primarily to result in better treatment of the patient. Instead of standing out individually, the group member should content himself with the reputation for increased accuracy and dependability which the group will enjoy.

Aside from the carefully conducted examination and the better-founded opinions regarding his condition, the patient will receive the additional advantage of such service for a decidedly less cost. For a comparatively moderate fee—no more, perhaps, than that claimed by one or two members of such a group acting independently—a patient will be entitled to the services of the entire group. The saving then to the individual patient will be a consideration which, undoubtedly, in itself will immediately commend the plan to the public generally.

Hospital an Agency in Public Health

That there is still much to learn before group medicine can be put into wide practice, goes without saying. That it is essentially sound in principle is conceded by both the public and the medical profession. Whatever the details of the plan may be, it seems obvious that the hospital is the natural center for the practice of any system of medical team-work. No doubt special parts of the hospital of the future will be devoted to this feature and headquarters will be provided within the institution for the members of the group.

As an agency in public health endeavor, the hospital becomes increasingly important as a center in which numerous activities have their inception and from which they extend into the community. Until within very recent years, the hospital has not been considered as of any particular significance in connection with public health except in the very limited sense that it rendered stereotyped hospital service to the poor. Our conception of the part of the hospital in an enlarged program for public health has under-

gone as great an evolution as our appreciation of the scope of public health work generally.

It is not so long ago that the chief efforts of health organizations were largely directed to an effort to control communicable diseases by the almost medieval methods of attempted segregation of infected persons and of those who had been exposed. The miasmata arising from damp places were held responsible for the prevalence of malaria. Now we know that the only basis for such a tradition is the fact that the swampy districts served as breeding places for the anopheline mosquito which transmitted the disease. The refuse pile was credited with originating typhoid fever when, as a matter of fact, its only rôle was in the breeding of flies which became, literally, the "winged messengers of death." Fumigation of dwellings has given way to the more rational practice of careful bedside technic in the care of the patients and a closer surveillance of the persons who have come into contact with the infected patient.

Education of the public, child hygiene, including infant welfare, with a concerted effort to reduce the infant mortality to minimum limits, well-directed efforts to eradicate tuberculosis and venereal disease, and other like endeavors have rapidly been recognized as the truly essential fields to which the attention of the sanitarian must be directed if real results are to be accomplished.

Number of Sanatoriums Inadequate

In the development of the new program of public health, the hospital has come to occupy a most important place. The special hospital for tuberculosis is now a recognized need, at least of every community of any size. In the crusade against the white plague which claims so many victims, the sanatorium is regarded as an essential feature. The sanatorium will not eradicate tuberculosis any more than the fire station will eliminate fires. However, in the fight against tuberculosis, the sanatorium is just as essential as is the fire station in the control of fires. With the well-directed, continuous, and nation-wide campaign that has been waged against tuberculosis in late years, the number of sanatoriums for the treatment of the disease have increased tremendously, but still the number is woefully inadequate. Practically all of these institutions have waiting lists, and a large proportion of those afflicted with tuberculosis can not be cared for.

Perhaps the chief cause of suffering and indeed of death, direct and indirect, is venereal disease, and yet the general hospital is still not equipped to care for this great problem. The war has shown the need most forcibly of a clearer understanding of the importance of the venereal diseases. The problem has existed almost from time immemorial and yet in this country it is only within the last two or three years that any considerable effort and money have been expended in an attempt, on any great scale, to combat the menace which threatens, not only the health of the nation, but its very social structure.

The Hospital and Venereal Disease

The hospital must be relied upon to perform a most important duty in the control of the venereal diseases. Usually the general hospital provides little or no facilities for the care of patients afflicted. Venereal diseases require hospital treatment, and, except for those institutions devoted to special conditions, all hospitals should be expected to furnish their quota of facilities for the diagnosis and treatment of these so-called social diseases.

From the expressed opinions of those most competent to judge, it may be conservatively stated that at least 10 per cent of the population are sufferers from syphilis alone. It has been variously estimated that from 20 to 50 per cent of males reaching the age of forty years have been sufferers from gonorrheal infection. Syphilitic infection and its sequelae probably account for as many deaths as tuberculosis. Two years ago these figures were astounding to the general public. The facts have been known to the medical profession, but it has taken the war to awaken the people to the magnitude of the problem. Every general hospital, as stated, should make provision for the reception and care of persons afflicted with the venereal diseases, and special hospitals, under certain conditions, should be erected and maintained for the same purpose. Recent studies would seem to indicate that a large proportion of women infected with venereal diseases are mentally abnormal. This fact in itself suggests that, as part of the plan for the control of the diseases in question, it will be necessary largely to increase the facilities of psychopathic hospitals and further to establish on a large scale institutions for the segregation of infected women whose mental status precludes the possibility of their becoming anything but a menace to the public health. In such special institutions these diseased persons could receive treatment and supervision which would enable them to contribute something useful in the way of industrial effort to the world and at the same time be segregated in such a way that they could no longer spread disease.

Essentially, except in magnitude, the venereal diseases present no different problem, from the

standpoint of public health, than do other communicable diseases. The average community in this country is ill prepared to care for the common communicable diseases which develop within its borders. The modern communicable disease hospital is comparatively a new conception. The pesthouse of antiquity has not by any means passed out of existence. The lack of provision for proper care of persons infected with communicable disease is substantially a national disgrace.

Value of Contagious Disease Hospital

There is no difference of opinion among sanitarians that a properly constructed and equipped hospital, especially designed for its purpose, is the ideal place for the segregation of persons infected with communicable diseases. Cases of disease which otherwise would be a serious menace to the community as well as to the other members of the household in which they develop can easily be given better care and medical treatment than they could possibly receive under the usual home environment. Sanitary isolation is so difficult an accomplishment in the home, and quarantine measures applicable to the household are so hard to enforce, that it is to the interest of every community, as a matter of protection to the public health, to establish and maintain a modern contagious disease hospital. Aside from the protection it affords and the indirect saving thus accomplished, such hospitals effect an enormous economic saving. When account is taken of the tremendous loss in effort and in wages entailed by the usual quarantine procedure, it is usually not difficult to convince the proper authorities that hospitals for communicable diseases should be available. Wage-workers are compelled to suspend their work and to undergo financial hardship, and finally to become burdens on the community simply because adequate facilities are not provided for the hospitalization of patients with contagious disease. Communicable disease hospitals can safely be established in connection with general hospitals and it is often advantageous to pursue this plan for in sudden emergencies the general hospital usually has better facilities in the way of personnel and equipment to meet the unusual demand. The recent epidemic of influenza clearly emphasized the utter lack of proper provision to meet the sudden need caused by a widespread epidemic.

In numerous communities, dental clinics have been established in connection with hospitals or as independent units. Under ordinary circumstances it seems obvious that there are many advantages in having the clinics a part of the hospital organization for the reason that the more activities of this character become associated with the hospital as a health center, the sooner people will regard the hospital as having functions outside that of merely caring for the sick. The results of the draft examination showing that fully one-third of the men of military age are physically unfit for military service, and of this number a large proportion were disqualified on account of defective teeth, there is no need to argue that preventive dentistry offers a most useful field for future effort. Disease conditions of the teeth are found to cause a great variety of disorders not heretofore attributed to this cause. Therefore, any well-equipped hospital attempting to realize its responsibility to the public must maintain a dental department especially for the diagnosis of disease conditions of the mouth and, in any efficient group organization, a competent dentist should occupy an important place.

Maternity Care Reduces Deaths

Another way in which the hospital may render community service is in providing proper maternity care for those who, under ordinary conditions, would not receive it. In the prevention of infant mortality, public health can demonstrate most striking results. The general infant mortality rate throughout the country is not less than 112 per thousand births. With adequate public health organization, including public health nursing, the average industrial community can reduce its infant mortality rate to at least 80 deaths per thousand births. When we realize that approximately one-third of all deaths under one year of age occur in the first week of life, it is not necessary to enter into lengthy arguments concerning the question of better care for the mother both before and after the birth of the child. Leaving aside the interest of the community in the mother, the child represents an asset to the state. Should any community endure the stigma of having it said that it can not afford to provide that its future citizens shall be well born? The hospital offers the solution. The community could well provide that all mothers, irrespective of their financial status, should have hospital care at childbirth and for a reasonable time thereafter, together with competent medical attention and nursing service.

Many of the births occurring among our citizens of foreign extraction are attended by ignorant midwives. The hospital is the most logical agency for the eradication of this evil. Usually the chief reason for the employment of the midwife is the expense of medical and nursing service. If it were made possible for the mother to

receive the care here suggested, at no greater expense than would be entailed at home, it would go a long way toward the elimination of the ignorant midwife. As far as the foreign population is concerned, the hospital is in a position to be a great force in the program of Americanization. The average foreigner has an inbred respect for the medical profession and for the hospital. Through the hospital he may receive new impulses in right living and instruction in numerous matters particularly concerned with the preservation of health that will make him, not only a better man, but a better citizen.

Effect of Industrial Hygiene

Another way in which the hospital will come more and more in touch with the community is through its relation to the subject of industrial hygiene, health insurance for workers and allied problems.

Industrial medicine is fast assuming a place of capital importance in the field of medical education and research. Investigations into conditions of labor which lead to ill health and unemployment are matters which might well enlist the interest of the hospital. It has been estimated that working people lose, on an average, nine days a year on account of sickness. This takes no account of loss of effort and efficiency on the part of those who continue at work despite the fact that they are suffering from illness for which they should receive either home or hospital care. Much of this illness could be prevented if the underlying causes were well understood. The hospital is often in a position to carry on investigation into these causes better than any other agency. Owing to the fact that individual industries have great difficulty in keeping track of their employees, chiefly on account of the labor turnover or the migration of labor from one industry to another, it is impossible to conduct from the factory or workshop far-reaching studies in connection with individual cases. The industrial worker, however, suffering from various ailments, will finally come to the hospital and from here exhaustive studies, which will be of immeasurable benefit both to industry and to the country as a whole, may be instituted. Information at hand regarding industrial diseases is comparatively meager. Our sum total of experience has not been great, and every available source of information should be utilized. The medical profession as a whole is woefully ignorant of the problems of industrial medicine, and to practitioners the hospital should serve as a postgraduate school in this broad subject.

There is a large demand for specially trained nurses to enter the field of industrial nursing. In fact it is already a legal requirement in a few states that certain industries employ competent first aid attendants. The supply of qualified nurses is utterly inadequate and in the preparation of nurses for this specialized line, the hospital owes a distinct public obligation.

Medical social service workers should correlate the cause and effect of industrial disease through the hospital on the one hand and the factory on the other. The patient who receives treatment in the hospital should be kept under observation when he returns to his work with a view, not only of preventing a recurrence of the disorder, but of applying the information thus gained to the prevention of disease in other workers.

The work of the hospital in the physical reconstruction of the wounded and war disabled has pointed most clearly to the needs of similar work in what is really the much larger field of reconstruction of the disabled industrial worker. Occupational therapy and industrial reeducation are going to be part of the activities of the hospital of the future.

Reference has already been made to the hospital as an educational center. The hospital should be made the depository of records of all kinds of medical and surgical experience. Hospital patients should be taught the principles of disease prevention, and should be encouraged in proper care of their physical resources.

Medical Staff as Teachers

Not only should the medical staff be regarded as having to do with diagnosis and treatment of diseases, but its members also should be made to feel their obligation as teachers of right living to the public and instructors of younger professional men, of students and nurses in all of the branches of the broad field of preventive medicine. In a sense, a hospital system might be evolved much on the order of our public school system. If private instruction were the only means available, persons in moderate circumstances would not be able to provide the educational advantages for their children which we, in this country, feel should be the right of every individual. In exactly the same sense, the average person cannot afford the type of medical service to which all human beings should have access. This highly desirable service can be secured for the large majority of people in only one way and that is through public provision. Frankly, this is state medicine. State medicine should not and will not supplant private practice any more than the public school should supplant the private institution of learning. There is still

a large opportunity for private medical practice, but the day is not far distant when the public, realizing that it is within its own power to provide it, will establish state medicine in one form or another.

This sounds like socialistic doctrine. It is not socialism in any sense. It, perhaps, might be termed socialization, and it certainly is time, both for the good of the public and the medical profession as well as the hospitals, that some degree of socialization should take place.

With the greater demand of the public for a better type of service than has hitherto been rendered will come a recognition on the part of the physicians and the hospitals that their own interests quite as much as the welfare of the people will be safeguarded and promoted by the changed order.

HOSPITAL AND HOME ISOLATION OF INFECTIOUS DISEASES:—THEIR RELATIVE VALUES

By D. L. RICHARDSON, M.D., Superintendent, Providence City Hospital, Providence, R. I.*

IN dealing with the subject of the relative values of hospital and home isolation of infectious diseases, it must be realized that a single answer cannot be made to apply to all infectious diseases. Those which possess similiar characteristics as to periods of infectivity, modes of escape of virus from the body, and modes of transmission can be grouped. It would be of far more value, however, to discuss each disease and draw conclusions as to the results of methods of isolation. In addition to the characteristics of each disease—such as modes of transmission, the percentage of cases which can be recognized, whether patients develop the carrier state, and the knowledge we possess as to when a patient is free from infections—there are other practical problems which enter into the question. One of these is a financial one, namely, whether a community can afford to support an isolation hospital and furnish enough patients who live within convenient access, to keep the hospital open all the time.

What is the value of hospital isolation?

Is hospital isolation of every patient ill with an infectious disease always ideal?

In what diseases is isolation practically useless?

Does it make any difference in family infection whether the patient stays at home or goes to the hospital?

How can it be determined who should be compelled to go to the hospital and who should not?

Is the modern hospital for infectious diseases a necessity to the average community?

Failures of Home Isolation

Another factor is the amount of intelligence of the people and their willingness to cooperate, particularly in maintaining home isolation. Among foreign-born colonies in our large cities, where the people speak little English and know little about infectious diseases, the placarding of a house is not of great value. In fact, it advertises illness in the home, and neighbors and friends flock in to find out what is the matter. Among the more intelligent native population who have some conscience, the card serves a very useful purpose, although they may object to it because of the ostracism which it imposes.

A third factor of much importance is the capability of the family physician for making early diagnosis, and his willingness to report these cases at the earliest possible moment.

A fourth factor is the Health Department—whether its workers are well trained, conscientious, prompt, and provided with sufficient funds to do their work well.

A fifth factor is our ignorance of etiology and modes of transmission of many infectious diseases.

Theoretically, it would appear that the hospital isolation of every patient ill with an infectious disease would be ideal, and should lead to abatement or control of all such diseases. Practically, this is not the result. In the first place, it is impossible to isolate every case, because we have no means of recognizing all of them. It is easy enough to recognize a typical case of scarlet fever, but nobody knows how many sore throats

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with mild or marked symptoms, but not attended by any eruption, are truly scarlet fever. Mild cases of diphtheria also present this problem even though we do know its cause and are able to recognize a large number of sore throats as diphtheria. Both of these diseases also develop the carrier state, and in a large city it is impossible to locate all the convalescent and healthy carriers. In epidemics of most infectious diseases, the virus is widespread among the people of the community but relatively few of them contract the disease, either because of immunity or because of small quantity and avirulence of the virus.

Isolation May Fail to Check Spread

Hospital or home isolation of some diseases is of no avail to check their spread. The recent outbreak of influenza is a good example. It is of little or no use to isolate measles and poliomyelitis. Influenza and measles are infectious so early that the damage has been done even before the disease is suspected. In a poliomyelitis outbreak, there are so many carriers and mild cases, that isolation of known cases is useless.

Dr. Charles V. Chapin has kept a careful record from 1904 to 1912 of the attack rate of diphtheria in families when the primary case was kept at home. This rate is 23.25 per cent. The attack rate among families in which the primary case was sent to the hospital, during a period from 1895 to 1912, was 20.25 per cent. There seems to be very little difference in family infection, whether the patient stays at home or goes to the hospital. These figures, of course, do not shed any light upon the question as to the effect upon the community outside of the family.

Information on this latter point is available. In London, hospitals were opened for scarlet fever in 1870. By the year 1890, 42.8 per cent of the patients suffering from scarlet fever were treated in the fever hospitals and the percentage rose until in 1912, 90 per cent were so treated. Yet, while the attack rate in 1891 was 270 per 100,000, in 1910 it was 230. During the interim it was variable but higher than either of these rates, reaching 850 in 1893 and 570 in 1897. Diphtheria was first hospitalized in 1888. In 1890, hospital admissions were 17 per cent, in 1912, 86.4 per cent. Yet while the attack rate in 1891 was 150, in 1910 it was 120 and during the interim it was considerably higher.

In Edinburgh, 40 per cent of scarlet fever patients were admitted to the hospital in 1890. This rose to 94 per cent in 1910. In 1881, the attack rate was 604; in 1891, 380; in 1910, 470. Thirty per cent of diphtheria patients were hospitalized in 1890, 93 per cent in 1910. In 1881, the attack rate was 80; in 1891, 79; and in 1910, 159.

In Haddersfield, England, in 1881, 57 per cent of scarlet fever patients were hospitalized, in 1910, 96 per cent. In 1881, the attack rate was 250, while in 1910 it was 870, the rate being variable between these dates.

Value of Hospital Isolation

It is not fair, however, to conclude that hospital isolation has not been of value. It has served as a useful agent in preventing large outbreaks and has thus been a factor in checking the prevalence of infectious diseases. If one examines the English statistics in their entirety, it is evident that there is a very slow variable diminution in these diseases. Most of the severe cases have been sent to the hospital, and there is little doubt that hospital isolation is of more value in the severe types than the mild, because the severe cases are much more infectious and more likely to give rise to severe secondary cases. The mortality of scarlet fever in London, it will be noted, has greatly decreased until even in the fever hospital it is less than two per cent, year after year. Hospitalization has been a prime factor in lowering this mortality.

Another side to hospitalization is the better care which the patient receives than is possible in the poor homes or even in many middle-class homes.

Hospital isolation is of greatest importance at the beginning of an epidemic of an infectious disease, particularly if the disease has recently been introduced into the community. It is like stopping a leak in the dike. But once the epidemic is in full swing, hospitalization is not possible for all cases and is of little avail because there are so many points of infection which cannot be located. The hospital serves a most important rôle in taking the sick from homes where they cannot receive proper care. The beginning of an epidemic is the time when strenuous efforts of health authorities in locating and hospitalizing every case has the most telling effect.

It is fair to conclude that hospitalization is of greatest value early in an outbreak; that while it may not bring about the disappearance of infectious disease in any community, it prevents the disease from becoming a severe epidemic; and that it helps to decrease mortality by furnishing better care to the patient, and by the removal of the severe types of disease from the community. It is also of great convenience for many people. In view of the fact that it is neither possible nor of absolute importance to provide hospital isolation for all infectious diseases, certain

well defined principles should be laid down as to who should be sent to the hospital and who should not. In the beginning of any epidemic of smallpox, typhus fever, measles, or any other disease which appears in the community, patients should be compelled to go to the hospital. Once the disease has become epidemic, the decision rests upon several factors. If the family includes several children, the primary case certainly should be removed at once. If the patient lives in a hotel, apartment, crowded tenement, or where any business is conducted, removal to the hospital is imperative. If either of the parents is engaged in handling food in any capacity or in any other occupation where he comes in contact with a large number of people daily, removal to the hospital is of great importance. If this is impossible, the parent should be excluded from the home while the patient is there. In a general way, all very sick patients among poor people should be hospitalized. Two common diseases which are looked upon as necessary evils, yet whose mortality is higher than scarlet fever, are measles and whooping cough. Children suffering from these diseases, under five years of age (and particularly under three) should be hospitalized, unless it is evident that home care will be adequate.

Both hospital and home isolation are of great importance and the rôle of each depends upon varying circumstances. A modern, well equipped hospital for infectious diseases is a necessary institution for every community of any size and will justify its existence as an excellent investment from the standpoint of saving life, as well as limiting the spread of contagion. The control of any disease can best be accomplished by an isolation hospital which is conducted in close harmony with the health officer of the community. Each particular case is an individual problem and the health officer must decide whether the patient should be sent to the hospital or can be properly cared for at home.

THE NEED FOR WAR-TRAINED PHYSIOTHERAPY EXPERTS IN THE HOSPITAL

By FREDERIC J. COTTON, M.D., Formerly Surgeon in Chief, United States Army General Hospital No. 10.

ONE of the finest possibilities of progress in the surgery of peace which was made possible by our war experience, lies in the chance of developing a tradition and practice of real after-treatment of injuries, particularly along lines of physiotherapy and curative occupational "training." Unfortunately, however, there is no certainty that the physiotherapy aspect of this after-treatment will be developed as it should be.

During the war our returning soldiers were given a care in convalescence that was wiser and broader than we have been accustomed to and was carried out with an extraordinarily high average of efficiency. This was possible for several reasons: first, because the need for this sort of thing was frankly recognized and provided for Second, because the patients were massed and under some control. Third, and most important of all, because there was a new sort of personnel to do the work.

No department of the army medical machine worked better than the department of physiotherapy. From the first draft of the plans by Colonel Brackett and myself, in the early summer of 1917, through the work of organization under the Surgeon General and the building up of a machine (largely by Maj. F. B. Granger under Col. Frank Billings), the picking and training of the personnel and the work itself progressed as originally planned.

Had to Build Up Personnel

It was evident at the start not only that the army had no adequate personnel for this work but that none was immediately available anywhere; it had to be built up. Medical men were available but not very many, and in most cases even these had practised only one branch of physiotherapy; whereas not only massage but also electric and hydrotherapeutic work, heat, light, and exercise treatment had to be provided. Furthermore, most of the men were not familiar with traumatic cases. They were brought together, instructed in methods, and taught balance, perspective, and standards. With this instruction, they did excellent work in directing the activities of the women aides.

But at the start there were no aides. Masseuses there were in plenty, rarely, however, trained in anything but routine massage, and often only half-trained. Physical culturists were numerous, with much theory, and with a good deal of practice in handling the problems of normal and abnormal development. But, as a rule, neither class knew anything about injury work or had had any practice in it.

It was a problem, but the problem was solved. This was possible because the war interest brought so many applicants. Of all the material offered, the highly trained women of real quality were picked out, registered, and put in service, partly to work, and partly to supervise and train the rest. Then began the special training of other picked women. At various points certain schools offered intensive courses from six to twelve weeks, prepared schedules which were approved, and went to work. There were such schools as the Reed School at Portland, Ore., and the Boston School at Boston, Mass., both of which furnished a considerable quota. Others, also, did good work. As a result, there was a supply of women, not all very experienced at the start, but soundly and properly trained for the work they had to do. So far as possible, they were given further clinical training under Maj. Robert W. Lovett, in a sort of graduate course established by the Government. Due to the pressure of time, the women who received this training were in the minority. The rest completed their training "on the job," under continuous supervision and teaching by specially qualified medical men and head-aides. They did splendid work here and abroad, and are still doing it in the army hospitals not yet closed.

It is significant that of about 2,000 applicants only about 815 were chosen. This gives one a conception of the pains used in the selection of personnel. It does not, however, tell the story of quality. Ninety per cent of these women were graduates of colleges or of normal schools in physical therapy. That comes closer to the story. The fact is, that at the close of the war the Government had in its service a group of young women of highly specialized training with a large experience not only along lines of massage treatment, but also in general physiotherapy treatment of injured men. They were not routine workers, but had knowledge, imagination, and insight enough to know what they were trying to do. Moreover they knew enough to judge results.

Trained Workers Should Be Utilized

We have never had this sort of personnel before in this country. What are we going to do with them now that the war is over? Many of these trained women are apt to go back to their previous work, varied, often entirely non-medical. This would be a distinct loss, for we have come to know how poor our care of the injured in industry has been.

We are talking a lot about industrial surgery. Can we do industrial surgery without provision for physiotherapy? Col. Frank Billings has said that every hospital needs a physiotherapy department just as much as an operating room. Certainly no hospital which treats industrial or other injuries can produce first-class results within a reasonable time, without provision for such work; and within a very short time no such hospital will be able to face its community and confess that it has not made such provision.

It seems to me, therefore, that now is the time to start this movement to utilize the trained and expert medical specialists and experienced aides available as the result of the war.

HOLD CONFERENCE TO UNITE FORCES IN HEALTH CONSERVATION

A conference for considering a plan of health conservation is being held in Washington, D. C., on January 26, by health officers, sanitarians, and representatives of important national health organizations. In a letter sent recently by Surgeon General Blue to state and city health officers, to the head of the American Red Cross, the American Public Health Association, the American Medical Association, the National Tuberculosis Association, the International Health Commission, the National Safety Council, the American Child Hygiene Association, and other health agencies, the suggestion was made to hold a conference in Washington to consider a health program prepared by the Public Health Service. It is felt that unless these agencies get together and arrange some definite plan of health conservation, there will be overlapping of effort and waste of funds, since all of them are undertaking some health program. The favorable response to the letter by practically all the organizations showed their interest in such a conference.

OHIO HOSPITALS TO GIVE ANNUAL REPORT

The Ohio State Department of Health has issued an annual report form to every hospital in the state on which to report its work during the year 1919. The form was adopted with the active cooperation of a committee of three hospital representatives of Ohio, the committee composed of Dr. A. R. Warner, Executive Secretary, The American Hospital Association, Dr. A. C. Bachmeyer, superintendent, Cincinnati General Hospital, and Dr. M. H. Cherrington, part owner of Cherrington Hospital, Logan, O. The report was accepted by the Department of Health's Hospital Bureau, and by the Ohio Hospital Association. A bill creating the Hospital Bureau Department of Health was passed at the last session of the Ohio legislature, and the bureau was empowered to investigate, study, and to require registration and reports from all Ohio hospitals. The Ohio Hospital Association will assist the bureau in the collection of the required data. The report was sent to the hospitals late in December, 1919, to be returned in March, 1920. The form covers only the work of the institution and its cost, with a few basic figures. Hospitals are asked to supplement their systems of records to permit reporting along these general lines during succeeding years.

Two things indicate a weak mind: to be silent when it is proper to speak, and to speak when it is proper to be silent.—Proverb.

MAKING TOYS FOR CHILDREN OUT OF NEWSPAPERS AND PAPER BAGS

By MRS. MARY EARKER, Supervisor of Kindergartens, Worcester, Mass.*

In these days when the high cost of living enters into practically everything, it is refreshing to discover a means of entertainment and instruction for the child, that costs nothing. The toy that delights the child is not always the most expensive or most elaborate. How to construct fascinating toys and dolls out of newspapers and paper bags, and pins and string is told in this article and in the illustrations. Here are suggestions which will be of interest to anyone who deals with children, sick or well; and of particular interest to the nurse, who often finds it a difficult problem to entertain the sick or convalescent child.

T was not so very long ago that the primary teacher looked upon the daily newspaper either as a medium of news or as an aid to a quick fire in the kitchen stove. Now she invites each child to bring a newspaper to school. The variety of articles that can be made out of newspapers is practically unlimited. The teacher may give the children a lesson in making newspaper pillows. They fold several thicknesses of paper together and then sew over and over the edges with big needles and coarse thread. Here the teacher may combine technic and skill with hygiene, by suggesting that the children use the pillows at the first picnic in spring. By sitting on the pillows, they may be prevented from catching cold from the damp ground.

Art for the Youngsters

Newspapers lend themselves readily to costume making. The *New York Times* and a few pins may be quickly converted into a costume for a Hallowe'en witch. Or at Thanksgiving time, a Pilgrim brother or sister may be dressed in broad-brimmed hat and wide collar or kerchief that is very effective. Excellent training can be given in cutting and folding when the goal is a soldier's cap. How dependent accomplishment is upon the goal! Once the human mind establishes a goal, then the child or man throws himself into purposeful activity. Attending upon this purposeful activity, or you may call it effort, are such goal-accomplishing elements as interest, attention, and concentration. Nothing can be accomplished that has in it an atom of originality or creativity without the attending elements of interest, attention, and concentration. It is only a slavish or dull nature that will work with these elements smothered.

The district nurse has cast her eye upon the daily press of our country and found it good—good for many purposes of which the brilliant editors have never dreamed. Only a person who has visited a home where a sick mother and four cold and hungry little children shiver under a single quilt, can even imagine the uses to which a district nurse can put a newspaper. She may add warmth by placing several thicknesses of newspaper between the spring and mattress and add more warmth by covering a patient with one or two layers, but always between the bed sheet and outside covering. Newspapers folded many times make a temporary pad wherever there are discharges, and no absorbent cotton or cloth is available. If folded into a cornucopia and pinned firmly, they make an excellent catch-all for the sputum papers of a tuberculosis patient, or one afflicted with an active nose cold. Pleated and pinned, the newspaper makes a good light-weight fan. (Fig. 1.) If the patient is a child be sure to tie a bit of twine to the fan, then fasten it to the bedside. Little hands and sick hands lack grip, and picking up anything is impossible.

The district nurse knows how to save washing and the discomfort of dampness by putting a newspaper under a patient when bathing is to be done, or a footbath given. Last, but not least, a few clean papers quickly spread upon shelves or kitchen table give an effect of cleanliness for the eyes of a sick mother to look upon. The district nurse may be just wild to roll up her sleeves and scrub the shelves or table, but time and physical strength often make it prohibitive. Blest be the newspaper—"God knows it is all we had to wrap Bridget Murphy's baby in, the day he was born, and him now the alderman he is."

There is more fun in the newspaper than the nonsense column offers. Bakers' caps, soldiers' caps, trench caps, and sunbonnets are easily made by children, with a bit of direction from teacher,

*This is the second of a series of articles on the recreation and entertainment of children in the hospital and home. The first article appeared in the January issue.

mother, or nurse. Their charm lies in the fact that they can be worn. Have you ever noticed that a costume, or any part of "dressing-up-fixing" made by the child himself, will be worn unblushingly? But you rig him up in something you have made, and he will be as selfconscious as a pug dog with a blue bow. Any little girl patient whose bed has been rolled out upon the veranda from the ward will love to wear a sun hat or sunbonnet (Fig. 1). These head coverings are light in weight and protect the sensitive eyes of the sick child.

Fig. 1. A good light-weight fan can be made out of newspaper. It should be fastened to the bed with a piece of twine. This little convalescent patient also has a paper sunbonnet.

How to Make Sun Hat and Dolls

To make the sun hat, cut two circles with the diameter the length of the shortest side of a single newspaper page. From one, cut out of the center a piece of paper that will leave a hole the proper head size. This is the brim of the hat. Now pleat up the other circle, tam o'shanter style, and pin to the brim. Trim with scraps and cuttings in any mode fashion or fancy may dictate.

Captain January, the big paper doll shown in the illustration (Fig. 2) can be quickly torn or cut from newspaper by the nurse, and has amused many a sick child. His jacket, pants, hat, rubber boots, and mittens, can be designed and cut out with very little trouble. Captain January, with his broad-brimmed hat and rubber boots, defies the weather particularly when he is pinned upon a blanket thrown over the foot of the bed, or upon the wall.

The News family are interesting dolls—Father News, Mother News, and Baby News (Fig. 2). These dolls are splendid for children in the isolation hospital or children suffering from contagious diseases in the home, as they can be burned up and fresh ones made the next day. Newspaper picture books are also entertaining.

Fig. 2. Captain January, wearing a smile and a complete paper outfit. Below him stands the News family, mother, father, and child, all wearing pleasant faces, for the sick child doesn't like ugly or cross ones.

Fig. 3. Shopping bags made by the children in a ward to give to their mothers when they came to see them. Some of the children even devised money to put into the bags. Paper pennies, nickels, dimes and quarters add much to the fun of the thing.

Fig. 4. A little paper man, a stove, refrigerator, and fireless cooker, made by student nurses in one hospital.

They are made by cutting and pinning together as many pieces of paper as pages are desired. Let the children cut out pictures and mount them with library paste. This is very entertaining work, and particualrly desirable for the "peeler" who is shedding his skin and cannot go to school, or even play outdoors with his friends. In making dolls, never allow ugly faces to be drawn or painted. The sick child is peculiarly sensitive to the ugly or grotesque. Fear arises and cannot be controlled, as it may, indeed, even when the child is in a normal state of health. This is especially true of foreign children in public hospital wards. A new environment, strange people, separation from home, pain, and discomfort are all agents of fear.

Paper Bags Have Many Possibilities

A brown paper bag has endless possibilities. From a big bag a mask can be made that will slip over the head like a helmet. Cut a slash at the right and left sides, leaving an opening, like in the knitted helmets we have made and sent to France. The shopping bags illustrated (Fig. 3) were made by a group of ward children as a surprise for their mothers who were coming to see them during visitors' hour. Each child cut out from paper, money for his mother's bag. "Much moneys," said little Charles, who lay on a frame shaped like a tiny crescent bridge in a Japanese garden. Only a few of the children asked for pencils to make figures on the discs, like one, twenty-five, ten, and five, as in the picture. The circular form alone seemed to indicate money to them. In reproduction children are always direct. They seize upon the salient characteristic of the object. In this case contour was the essential thing.

The talking machine (Fig. 5) and the paper-bag man, stove, refrigerator, and fireless cooker (Fig. 4) were made in class by Junior nurses. They are only a few of the clever toys made from paper bags by student nurses. Beds, chairs, houses, stores, a garage, and a rocking horse that will rock were made. A half-bushel bag was converted into a fascinating bird cage, where a gorgeous blue and yellow parrot, cut from a magazine had been installed. The original models brought into class by the nurses last year ranged from a circus wagon with a tiger behind the paper bars to dainty open-work boxes for handkerchiefs and gloves. Each year I am more impressed with the creative ability and resources of young nurses; each year I think no class will ever again bring me such delightful models. I recall a treasure a young student nurse offered, several years ago: a charming bungalow set in a garden, with tiny barn and henhouse, walks, and driveway. It was all surrounded by a garden fence. She had made the roofs red and had added other touches with water colors. It was like an architect's model. I am sure the house matron knocked on that girl's door before she had finished, saying: "Miss H., you know the lights should be out at ten o'clock." Of course one can do far more attractive work with new bags, such as the nurses use for experimentation, than with old bags. The size of the bag has much to do with the effectiveness of the article constructed.

Fig. 5. This talking machine was made out of a paper bag by one of the Junior nurses.

Somehow these absurd toys strongly appeal to children. A first grade teacher in the Worcester Public Schools, who gave a lesson on the method of making a newspaper doll, claims that the reactions have been most interesting. Dolls made of newspaper, handbills, tissue and wrapping paper, and wall paper have poured into her school room. Some were dressed in paper, some in cloth, some in lace. All were presented to her as creations of a rare order. That wise first grade teacher did not value those dolls for any beauty, for there was none. The intrinsic value was in the effort and imagination that had been put into the making of the doll by a six-year-old child. Too long have we placed the value in school work on results—on the product. The value of any project the child may undertake, such as writing and English composition, making a bird house, or doing an example in long division, lies in process. From process we gain skill, or ideas, or both. These we carry on to the next undertaking in life. Almost any one will agree that this work with odds and ends is diverting for the sick child. The most curious point is that teachers are finding that it is deeply educational.

We are often amused to see how seriously the children work. It is as if they said to the grown-up: "Why have you kept the real purpose of newspapers and bags from us? They are to be played with."

ANESTHETICS—THEIR USE, VALUE, AND METHODS OF ADMINISTRATION

By HARRY A. BRITTON, M.D., Superintendent of Hospitals, Minneapolis, Minn.

Administrative Requirements of the General Anesthetic

THE administrative requirements of the general anesthetic can be summed up in three statements. These requirements are:

1. A thorough knowledge of the action of the anesthetic employed.
2. A thorough understanding of the method of administration employed.
3. The pathological condition of the patient, especially of the heart, lungs, and kidneys.

Statements 1 and 3 can be considered under the indications and contra-indications and the physiological action of the various anesthetics. I shall consider ether, chloroform, nitrous oxide and ethyl chloride.

Ether.—Indications and Contra-indications for Its Use.—According to Hewitt, ether can be given to healthy and moderately healthy individuals with very little risk. It should not be given to patients who have a dislike for it due to the remembrance of some previous operation, or for some supposed inability to take it. The psychic effect may be sufficient to kill, there being cases of this kind on record. It should not be given where there is any disturbance of the respiratory system with or without marked dyspnea, kidney disease, disease of the aorta as aneurysm or atheroma and any other condition with high blood-pressure. Some authorities consider it contra-indicated in the extremes of life and in operations upon the brain or for exophthalmic goiter. In cases of chronic bronchitis, ether may be given if administered slowly and the operation is not too long. A combined method is indicated in these cases. It should not be used with the actual cautery as the patient may be seriously burned.

The Physiological Action of Ether.—The principal action is upon the central nervous system affecting first the cerebrum, then the spinal cord and, finally, the medulla. The circulatory system is secondarily affected. The rise in blood-pressure is due to two causes, first, the excitement produced by the taking of the anesthetic and, second, by the stimulating action of the anesthetic itself. Under deep narcosis blood-pressure falls.

Absorption and Elimination.—Ether is absorbed by all the mucous membranes and eliminated principally by the lungs and some by the kidneys where it has a marked irritating action. It is a rather common occurrence to find albumin and casts in the urine following anesthesia. It may be the cause of producing glucose, acetone and diacetic acid in the urine which substances are probably produced by a disturbed metabolism.

Chloroform.—The physiological action on the nervous system is the same as ether but more powerful. On the circulatory system, there is a marked fall of blood pressure with slowing of the pulse. If given diluted there is a transient rise of blood-pressure but later, a fall.

Chloroform is also absorbed by the mucous membranes. It is eliminated largely through the expired air and somewhat through the kidneys. It is more irritating than ether, volume for volume, but as it requires only a small amount for most

operations it is much less irritating at the points of absorption and elimination.

Indications and Contra-indications for Its Use.—Chloroform should be used in acute inflammations of the respiratory tract, in advanced nephritis, when complete muscular relaxation is required, to check convulsions or when the actual cautery is used. It should not be used when the patient is in the sitting posture, in diabetics, where the blood pressure is low, in prolonged operations, in cases of status lymphaticus or where there is an open flame.

Nitrous Oxide.—Nitrous oxide is the safest of all anesthetics, but requires a trained anesthetist to administer it, if given for any prolonged operation. Its action seems to be principally on the cerebrum and the rise in blood pressure is probably due to a certain degree of asphyxia. It is a good anesthetic to use for short operations, unless combined with oxygen, in which case it can be used over long periods. Relaxation of the muscles can be obtained by adding a small amount of ether. The chief contra-indication is arteriosclerosis.

Ethyl Chloride.—Little can be said about this anesthetic, except that it is probably more dangerous to use than any of the others. It lowers blood pressure and slows the pulse.

Who Should Give Anesthetics?

The Prerequisite Qualifications.—The ideal way would be to have a specialist give all anesthetics, but as this is almost impossible, any man or woman that has had special training in giving anesthetics can fulfill all requirements. The use of nurses for this purpose has been upheld by several courts. It has been stated that trained anesthetists insure to the patient complete absence of sensibility with the least amount of discomfort and risk. What are the requirements for a good anesthetist?

To become an anesthetist, one should take a thorough course of instruction, this to include, anatomy, physiology, some neurology, pathology, chemistry and physics. After having a good foundation in the above subjects, instruction in giving anesthetics should be started under the supervision of a specialist (medical man). Such a course would make the trained anesthetist but not the specialist.

The specialist, I believe, should be able to make his own physical examinations and treat any complications that may arise during the operation or immediately after. This relieves the surgeon of a great deal of the responsibility and allows him to give all his attention to the operation.

All anesthetists should know the physiological action of the various anesthetics, including the avenues of absorption and elimination. They should know the indications and contra-indications of the various anesthetics. They should thoroughly understand the various methods of administration, open, closed, and rectal, also the preparatory and after treatment and methods of resuscitation.

The Staff Member as the Anesthetist.—Just as we have specialists in the various branches of medicine so I believe every hospital staff should include a member that is an authority on anesthesia. I do not believe it necessary that he should give all the anesthetics as this would be a physical impossibility, unless only one operation were performed at one time. The qualifications and duties of the specialist are: (1) He should be a medical man. (2) He should be able to test anesthetics as to their purity. (3) He should instruct interns, nurses or others to give anesthetics properly. (4) He should thoroughly understand the various methods of giving anesthetics, i. e., the advisability of using the open or closed method, also the various sequences. (5) It should be left to his judgment to select the proper anesthetic for each case. (6) He should have interns assigned to his service and train them to give anesthetics. (7) He should be called upon to give, or supervise the giving, of all anesthetics in special cases of surgical staff.

The Intern as the Anesthetist.—During the course of training of the medical student, each member of the class is supposed to give a certain number of anesthetics. Some do it willingly, some do it because they are forced to it, while some (the minority) manage to escape this very important training. This last class usually will avoid going to the operating room, unless they are sure of assisting at the operation.

The intern, when he enters the hospital, should know the fundamental principles of anesthesia and in the hospital should learn the finer points of administration under an experienced anesthetist. The intern is often more interested in the operation than in the patient to whom he is giving the anesthetic, with the result that the patient is either too deeply under the influence of the anesthetic or is coming out of it when the operator would like to have perfect anesthesia. This apparent indifference I have only seen in the giving of ether, and here it is probably due to the relative safety of the anesthetic.

If a staff man were at the head of a department of anesthesia, I would consider it the duty of the intern assigned to him to make his own examinations of heart and lungs, examine a specimen of urine and take the blood-pressure of each patient.

This information should be recorded on a special sheet and sent to the operating room with the patient. This sheet should also have a record of any important neurological lesion that would be likely to affect the reflexes and any preliminary medication that would be likely to mislead the anesthetist.

The Trained Nurse as the Anesthetist.—Of late years trained nurses are being allowed to give anesthetics and in several states court opinions uphold their right to administer same. I have found them more attentive to the patient than some interns and then again I have seen them almost drown the patient with the anesthetics, the anesthetic (ether) dripping off the mask onto the table. Occasionally you find one more interested in the operator or his assistants than in the patient. Any trained nurse should first be given a complete course in anesthesia and then should give a certain number under the direction of a staff man or other trained anesthetist before being allowed to give any alone. I do not approve of a nurse or other trained lay person at the head of an anesthetic department if he or she is to be used to train interns, as I have always found interns resent being told how to give an anesthetic by a non-medical person.

Trained Women Who Are Not Nurses as Anesthetists.—I cannot see any reason why a thoroughly trained woman cannot give anesthetics. It would be absolutely necessary for her to have a thorough course as nurses have, in anatomy and physiology of the respiratory and circulatory system and also she should know something about the nervous system especially the reflexes.

Why limit the giving of anesthetics to women? In several institutions I have seen orderlies give anesthetics and they were given well. They watched the color of the patient and his respirations and depended upon the nurse to take the pulse.

Why not take such a man and teach him? As a result of the war we have a great many men that are not fit to do any very hard work and I believe many could be taught to give anesthetics properly.

HOW TO MEET THE NEED OF RURAL HOSPITALS

By J. J. ROSS, M.D., Middlebury, Vt.*

DURING the last ten years, due to the recent criticism of medical colleges, followed by drastic recommendations, the number of men graduating from these institutions has been cut almost in half. At first this reduction had little effect on the rural communities, but it was only for a short time. Very soon they were the ones to suffer most. The war has only tended to make these conditions worse, for in many cases it was the rural community that gave most freely of its doctors. And now with the close of war, in many instances these men have gone to other fields. So as we are again approaching the normal there is still a great shortage which will be even more keenly felt as the older practitioners retire from service. These men have grown up with the towns until they are a part of the community, and they will spend their last years of usefulness for the "home folks." But we must soon face the fact that a man who has had to take a two-year course in college, a four-year course in medicine, and a year or two in a hospital as an intern, will be slow to locate in a community of 800 to 1,000 people. For many times he could receive more as intern than he could earn the first years of practice in a small town.

The deans of our medical schools are constantly getting letters asking for men to locate in the small communities. One who is familiar with the subject knows full well that a country doctor has to spend far more money for transportation and equipment than his city brother. His fees are smaller and he feels the isolation. All these factors are tending to turn away the physician from the rural districts, and in some instances the situation is really acute. One has only to look a short way into the future to see the time when real estate will depreciate in value because people will not want to live where they cannot have proper medical attention, at least in cases of acute illness, and in times of accident.

Rural Districts Need Doctors

I quote from a recent editorial in a Vermont paper: "The town of Corinth would seem to be a fine place for a young physician to set himself up in practice, inasmuch as there is no physician in that town and none located nearer than Chelsea and Bradford, both of which communities are removed many miles. The need of a resident physician for Corinth is made more apparent when one is told that a newly born child's life was sacrificed because of the inability to get a physician to attend the case, although ten different calls were

*Read before the Second National Country Life Conference, Chicago, Ill., Nov. 8, 1919.

made for medical attendance. Aside from the desperate need of a physician in Corinth, there is some incentive for a medical man to locate there because Corinth is an attractive little village and the center of several smaller villages into which a doctor's practice might be extended. The location does not promise quick wealth for a doctor but it does offer splendid opportunities for service and for reasonable returns financially, it would seem. . . . "This is one of the scores of similar instances reported from all directions. It now behooves all people to encourage young men to engage in the study of medicine. We are to bear in mind not only that there is an excellent field for physicians but also that this field offers a grand opportunity for service for humanity." Let us ask ourselves if the average young man just starting a home would like to ask his bride to go to Corinth to live.

During the war, many medical problems in France had to be worked out. The French people made their way to the base field hospital, advance dressing stations, or casual clearing station of the British army, and patients who before the war would have felt they must have a personal visit by the physician were only too glad to have a hospital to which they could go. The scarcity of medical men was so great in the British army that I have had patients come for miles for treatment.

Build Simpler Structures

One thing the war has taught us is that the hospital need not of necessity be constructed of brown stone or marble. I wish I could make the people of this country realize the great work done by our surgeons in some cases in operating rooms constructed out of packing boxes and under canvas.

Cannot we give up the idea of spending so much for architecture and make the money go farther by building a more simple structure? In a certain properous community the town rejoiced to know that a gift of $30,000 had been made for a hospital. Soon after, however, all building was stopped on account of the war. On the signing of the armistice it was found that building materials had so soared in price that it was impossible to build with this amount of money. One of the trustees told me the other day that in order to make the money go farther, they had decided to employ architects that would seek to make a practical building rather than one noted for its architecture.

In many communities all that is necessary is that public sentiment be aroused. If this same town had had some one to make known the need of a hospital, it might to-day have a prosperous one. The leading banker said to me only a few days ago, "Had I only thought to mention it to a wealthy man when he was making his will, he would have been only too glad to build a hospital." There are many people of wealth who are only waiting to have some one suggest to them such a need and they will respond to it. I recall one gift with which a hospital of fifty beds was built. However, it was a beginning, and to-day there is a hospital of 150 beds together with a good endowment.

Those who desire to study the problem of the rural hospital will find a most interesting institution at White Rock, North Carolina. A woman went into the mountains of this section to give an education to those who desired it. She soon saw the possibilities of a hospital. For years she worked on, looking continually for the right man to carry on the medical work and to be the nucleus around which the structure should be reared. Finally Dr. John Campbell of the Russell Sage Foundation persuaded his friend, Dr. George Packard, to take up the difficult task. He proved to be the man of the hour. The first achievement of Doctor Packard and his associates is one that can well be emulated. They did not wait until sufficient funds were available. They got their plans well worked out and when the first money was given the foundation was laid. Later the frame was put up and as money came in the building was completed bit by bit and furnished in the same way. To-day, as a result of years of planning and working, there stands among these hills one of the most complete hospitals in the land. The country people are proud of it for they feel it is their own, and they show their confidence in it by preferring it to some well known city institutions.

Anyone familiar with city life knows how easy of access are the numerous hospitals located in large cities. Not an accident occurs but what the victims, no matter how poor, are placed where they receive the best of care, within a few minutes. How different in our rural communities! Unable to get to a hospital, patients have to remain at home. Anyone who has done country practice knows what that means. Accident cases and cases of severe illness often turn out fatally when the outcome could have been different if proper treatment and nursing had been at hand.

Is there not some way these appealing facts may be brought to the attention of men able to meet the need? It seems to me there has been no time in the world's history when people were more ready to give. America has received a great lesson in giving and she can continue for a long

time with no ill effect. Surely there can be no more practical gifts than hospitals to minister to the needs of rural people. As I have already shown, these hospitals need not be costly in structure but may be unpretentious and at the same time adequately equipped.

Rural Hospital as Memorial

I have seen almost daily suggestions for appropriate memorials to our dead soldiers, but never have I seen the mention of a rural hospital. What more appropriate memorial could a county give than to erect a building where life might be saved and men and women made new! Could we not in this way make some of the lives recently sacrificed a living factor for good? I have had to break the news of the loss of sons in battle to parents. In one case it was the only son and child. What more lasting monument could those parents erect in memory of their son than a rural hospital within whose walls the lives of multitudes might be saved?

Another means of meeting these great needs, especially if a hospital is available, is the hearty cooperation of the state authorities, as seen in the work of the North Carolina State Board of Health. This state is trying to give to each child a chance to make good by remedying some of the physical defects which so often handicap our youth. I had the opportunity last summer to see the working out of the plans of this state board in one of its public clinics.

Owing to lack of medical inspection, many children of our rural schools and districts are suffering more to-day than those of our cities, and North Carolina is one of the states setting about to remedy this condition. It is arranging clinics where children may be operated upon for such troubles as diseased tonsils and adenoids at a minimum expense. In the case of this particular clinic which I attended, the children lived so far away that it seemed as though the doctors and nurses would have to give up the clinic. Perseverance won out, however, and soon the workers were asking, "Can we accommodate all that want to come?" The first day of the clinic the new hospital had twenty-two operative cases and the second there were fourteen. All this was accomplished in a hospital located in a mere settlement eighteen miles from a town boasting of one short main street. But this little settlement, which is the central point of this mountainous section, is really the key to the medical situation. Rural in the extreme in its surroundings, the hospital placed there will minister to the people living back in the mountains as it could not do if it were way down in the village on the railroad.

One physician can do as much in two hours in a hospital as he could in driving ten hours. We must sooner or later conserve the time and strength of our country physicians. Good roads have helped, but the bulk of a doctor's work is during the time of year when roads are at the worst.

In conclusion I would make these suggestions: First, that the vast amount of material collected by the War Department on the construction and equipment of hospitals be put to practical use. Reports will be made on adapting old structures to the use of hospitals. If all this material could be put into available shape and placed in the hands of those responsible for building rural hospitals, it would be a great help. Second, that a set of plans be drawn of a hospital that could be constructed at a minimum cost and at the same time, furnish the maximum of efficiency. Is not this quite as important as to furnish government plans for cow barns and pig pens? Third, that each state be asked to pass public hospital laws such as exist in the states of New York and Ohio. If a philanthropist knew such laws existed in his state he might more readily agree to leaving a gift for a community hospital, as he would know his funds would be wisely spent. Fourth, that an effort be made to educate our communities so that the county would be willing to levy a tax for the erection and maintenance of a hospital. The *per capita* tax would be small but the result would be great.

I have tried to show briefly the great needs of rural hospitals and to give some suggestions for meeting the need. Surely we cannot expect the people of our rural communities to be much longer content with their lot if they are not ministered unto as well spiritually, intellectually, and physically as their brothers of the larger communities.

Victor C. Jacobson to Wisconsin

Dr. Victor C. Jacobson, pathologist to the Peter Bent Brigham Hospital, Boston, has been appointed assistant professor of pathology in the University of Wisconsin.

CHILD WELFARE IN FRANCE

The general child welfare activities of the American Red Cross during the war included an appropriation of $3,013,505 for the children of France. An idea of the extent of the work is given by the following table:

Hospitals and convalescent homes operated	$ 25
Patients treated in above	16,348
Dispensaries and clinics operated	99
Patients treated in above	189,111
School children served in canteens	32,000
Children taught to play	27,000
Child welfare expositions held	7
Attendance at expositions	625,000
Children's institutions or societies aided	519

AIR CONTROL AND THE REDUCTION OF THE DEATH RATE AFTER OPERATIONS

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Part II. Variability

THE preceding part of this article* contains repeated reference to variability as one of the most important elements in the control of the air. We are now ready to discuss the matter in detail. In a recent article[1] figures were given showing the relation of about 400,000 deaths in New York City during a period of eight years to the weather on the day of death. The figures showed conclusively that when all sorts of ailments are averaged together the general death rate at all seasons varies in close harmony with changes in temperature. In summer and winter alike a drop in temperature is at once followed by a drop in the death rate, while a rise is followed by a rise in the death rate. In the same way, investigation discloses that if the temperature from one day to the next remains constant, the death rate on an average also remains constant.

The idea that uniformity of temperature and of weather is beneficial appears to be wrong. Constant, but not excessive variability appears to be beneficial in almost all diseases, as well as for persons in good health.

In surgical operations this is particularly important. Except in the most extreme weather operations performed when there is much variation from day to day have a far greater chance of success than have those performed when the weather remains the same day after day.

In every hospital and sick room, as much attention should be paid to ventilation as to meals.

That this should be the case in summer is quite to be expected, for everyone knows that hot weather is depressing and that a cool wave is stimulating. But why should it be true in winter? Cold weather is certainly harmful in the long run, as is proved not only by common experience, but by a detailed study of millions of deaths. Moreover, sick people who are on the point of death are guarded from the outside air more carefully than any other group. How then can they be at once benefitted by even a slight drop in the outdoor temperature? Elsewhere I have suggested that the case is analogous to a cold bath. The shock of the cold air, like the shock of cold water, is presumably stimulating and has a good effect on health provided it does not last long enough to cause a chill. That explanation may apply to persons who are in good health and who come in contact with the outside air often enough to receive its effect, a contact which requires only a few minutes. It does not seem satisfactory, however, for patients who are carefully kept from such contact.

Accordingly, let us inquire by what possible means a drop in the outside temperature can affect the health of patients who are secluded as carefully as possible from every outside influence. Only two possibilities seem to present themselves. In the first place, changes in temperature are always accompanied by changes in humidity. This fact, as we have already seen, goes far toward explaning why cold weather has so bad an effect on health even when people are kept warm, but it does not help in explaining the stimulus of a cold wave. In fact, it would lead us to expect cold waves to be harmful. Not only is the capacity of cold air for moisture less than that of warm, but, as a rule, the air of cold waves in the eastern United States, with which we are now dealing, contains an unusually small percentage of moisture in proportion to its capacity, for it comes from the dry interior. Since dry air, except at high temperature, is harmful, the conditions of humidity in cold waves would tend to increase, not diminish the death rate.

The second possible means by which cold waves may stimulate sick people is through their effect on the variability of the air. Every one who has cared for a furnace knows that, when the temperature begins to drop out of doors, there is at once difficulty in keeping the house at the uniform temperature which is mistakenly supposed to be ideal. Not only the actual drop in temperature, but the wind which almost always accompanies it causes the temperature indoors

*The second of a series of two articles. Part I was published in the January issue of THE MODERN HOSPITAL.

[1]Huntington, Ellsworth: Interpretation of the Death Rate by Climographs, Mod. Med,, 1919, i, 130.

to fall. Then the furnace draft is opened and, more often than not, the house soon becomes too warm. Next the windows are opened a little, and the temperature falls. So it goes, first this way and then that.

In many houses it is much easier to preserve a uniform temperature on a perfectly quiet day when the temperature stays steadily near zero, or only rises in response to the sun, than on a windy, blustering day when the thermometer falls from 30° one morning to 20° the next morning at the same hour. As a matter of fact, even the houses with the best heating system and the most solid, wind-proof walls are practically certain to be much more variable when the wind is blowing and the outside temperature falling than when the air is quiet and the temperature is either stationary or else gradually rising under the influence of one sunny day after another.

Variability Stimulating and Helpful

In spite of the common prejudice to the contrary, such variability is stimulating and healthful. This does not mean that drafts which cause a chill are desirable. They are merely an incidental feature which is a drawback in so far as people have lived under bad surroundings to such an extent that they have lost their power of resistance. The temperature can vary, however, without causing drafts. The effect of such variations is well illustrated in theaters and other large auditoriums where a change of a few degrees by reason of slowly descending cool air may wake up a dull audience and make it enthusiastic. In temperature, as in many other things, a uniform optimum is not nearly so good as frequent variations in one direction and the other. No one advocates a uniform diet even though it be ideal. If an absolutely ideal meal could be set before people three times a day for a year, does anyone believe that the persons thus fed would be as well as if they had been served with a great variety of good meals no one of which was quite so perfect as the ideal?

It is just the same with the air. We try to have uniformly ideal air in our houses in winter, and thereby we make two grave mistakes. In the first place, as has been pointed out in connection with humidity, we do not actually achieve the ideal, because as yet we scarcely know what conditions of moisture are really right; and in the second place, we try to attain uniformity, which is a mistake. Fortunately, while a cold wave is in progress we rarely succeed in obtaining a uniform temperature, and thus although the dryness of the wave may do harm this effect is often overcome and reversed by the good effect of the attendant variability.

Now let us turn to operations. Only those which were followed by death after one to ten days are used in Table VII which sums up the whole matter for the Boston City Hospital. For the Massachusetts General Hospital the data are similar, but since our tables for that hospital include deaths more than ten days after the operations they are not included. Table VII shows the deaths per day after operations which were performed when the change of temperature indicated at the top of the table took place between 8 a. m. of the day of operation and 8 a. m. of the succeeding day. The response to changes of temperature is somewhat different in winter and in the remainder of the year, as appears in the two upper portions of the table. For example, from December to February there were 101 days when the temperature fell 9° or more from 8 a. m. to 8 a. m., and the operations performed on these days were followed by 38 deaths, or an average of 0.376 per day. The 52 days with a drop of 4° to 8° account for 19 deaths, or 0.365 per day, and so on until the 99 days with a rise of 9° or more account for 30 deaths or 0.303 per day.

Clearly the death rate after operations in winter is high when the operations were performed at the time of a marked drop of temperature and diminishes systematically as the drop decreases or as its place is taken by a greater and greater rise of temperature. This does not agree with what we have said as to the 400,000 deaths in New York, but this involves no real discrepancy. Patients who are undergoing operations, as we have seen, are peculiarly sensitive to humidity. Cold waves diminish the humidity; moreover, they are usually followed by periods of low temperature and dryness. Thus, although the variability arising from the drop in temperature may be beneficial, the dryness more than counteracts this.

In the next section of Table VII we see that during the rest of the year, from March to November, the death rate is lowest, 0.198, when the temperature drops most rapidly; it increases to

TABLE VII

DEATHS PER DAY AT AN INTERVAL OF 1 TO 10 DAYS AFTER OPERATIONS AT THE BOSTON CITY HOSPITAL PERFORMED ON DAYS WITH VARIOUS CHANGES OF TEMPERATURE FROM 8 A. M. OF THE DAY OF THE OPERATION TO 8 A. M. OF THE NEXT DAY.

	Drop of 9° or more	Drop of 4°-8°	Change of 3° or less	Rise of 4°-8°	Rise of 9° or more
Dec.-Feb.	0.376 (38-101)	0.365 (19-52)	0.326 (31-95)	0.315 (23-73)	0.303 (30-99)
Mar.-Nov.	0.198 (25-126)	0.232 (47-203)	0.343 (201-586)	0.331 (88-266)	0.292 (36-123)
Mar.-May	0.233 (10-43)	0.226 (14-62)	0.495 (105-212)	0.438 (42-96)	0.403 (21-52)
June-Aug.	0.229 (8-35)	0.187 (14-75)	0.293 (65-222)	0.279 (26-93)	0.281 (9-32)
Sept.-Nov.	0.146 (7-48)	0.288 (19-66)	0.204 (31-152)	0.260 (20-77)	0.154 (6-39)

a maximum 0.343, when the change from day to day is at a minimum; and falls again to 0.292 when there is a rise of more than 9°. This same relationship is evident in the shorter seasons into which the rest of the table is divided, although the figures are not quite so regular because of the comparatively limited body of data.

TABLE VIII

DEATHS PER DAY AT BOSTON CITY HOSPITAL AFTER OPERATIONS PERFORMED UNDER VARIOUS CONDITIONS OF VARIABILITY OF TEMPERATURE.

	Change of 9° or more in either direction.	Change of 4° to 8° in either direction.	Change of less than 3° in either direction.
Dec.-Feb.	0.340 (68–200)	0.336 (42–125)	0.326 (31–95)
Mar.-Nov.	0.245 (61–249)	0.288 (135–469)	0.343 (201–586)

From March to May the contrast between the favorable conditions of falling temperature and the unfavorable conditions of uniform temperature is particularly noticeable. From June to August it is not so striking, although clearly evident. In this section days with a rise of temperature are nearly as bad as those with little change, and would appear worse did not the days of rising temperature include many cases where unusually cool weather is followed by a rise to conditions which are almost ideal as to both temperature and humidity.

In the fall the figures are very systematic, but show a peculiar drop in the death rate at times when there is little change of temperature. This may be due to the fact that in the fall the days that are most nearly ideal as to both temperature and humidity are likely to occur during spells of fairly steady weather. Yet even so, the days with a marked change of more than 9° in either direction average only 0.150 deaths per day against 0.204 when the weather remains uniform.

The Margin of Safety Estimated

Table VII makes the advantage of variability so evident that it scarcely needs further comment. Yet it may be well to add together the days having a given degree of change without reference to whether the weather grows warmer or cooler. This is done in Table VIII. Here it appears that in winter the advantages due to a pronounced drop in temperature do not balance the accompanying dessication of the air. The difference between weather with great changes and that with few changes is slight, however, only 0.014.

During the rest of the year, however, the advantage of variability is great, for the days with a change of 9° or more have 0.098 less deaths than those having a change of less than 3°. To put the matter in another way, the average number of deaths per day from March to November is 0.305. If the conditions all the time could be like those which prevail when the temperature either rises or falls 9° or more, this death rate would be lowered by 19.7 per cent. Here, then, we have still another way in which a change in the air of our hospitals at the time of operations would theoretically produce an improvement of nearly 20 per cent.

Effects of Rising Temperatures

In this connection there naturally arises the question whether variability of temperature near the time of death is as important as at the time of the operation. This is answered in Table IX which shows the number of deaths per day when the indicated changes of temperature occurred during the 24 hours preceding and following 8 a. m. of the day of death. In certain respects, the tendencies shown in this table are the opposite of those in Tables VII and VIII. Thus during the winter, especially in section B which shows the actual day of death, rising temperature seems to be harmful, a condition which harmonizes with what has been learned as to deaths from diseases in general.

During the rest of the year, on the other hand, an extreme drop seems generally to be bad. The other figures are indeterminate in Section A of Table IX, but are like those of Table VII in Section B; that is, uniformity is worse than a change. Apparently Section B of Table IX shows a much more genuine relationship than Section A, which is not surprising since B gives the conditions on the very day of death.

Humidity After Operations

On that basis we may say that in winter changes of temperature several days after an operation have a directly opposite effect from changes at the time of operation,—which simply

TABLE IX

DEATHS PER DAY SUCCEEDING OPERATIONS AT BOSTON CITY HOSPITAL, AND OCCURRING AT TIMES WHEN THE INDICATED CHANGES OF TEMPERATURE TAKE PLACE FROM 8 A. M. TO 8 A. M.

	Drop of 9° or more	Drop of 4° to 8°	Change of less than 3°	Rise of 4° to 8°	Rise of 9° or more
	A. *Twenty-four hours preceding 8 a. m. of day of death.*				
Dec.-Feb.	0.396 (40–101)	0.231 (12–52)	0.327 (31–95)	0.397 (29–73)	0.333 (33–99)
Mar.-Nov.	0.349 (44–126)	0.261 (53–203)	0.319 (187–586)	0.368 (98–266)	0.358 (44–123)
	B. *Twenty-four hours succeeding 8 a. m. of day of death.*				
Dec.-Feb.	0.277 (28–101)	0.307 (16–52)	0.347 (33–95)	0.383 (28–73)	0.404 (40–99)
Mar.-Nov.	0.428 (54–126)	0.266 (54–203)	0.331 (194–586)	0.309 (83–266)	0.301 (37–123)

means that at the time of the operation humidity is the most vital factor, while at a later period variability assumes the more important rôle. From March to November, on the other hand, when extreme dryness like that of winter almost never prevails, variability is desirable at both times although a great drop of temperature may prove harmful. Such variability, however, actually has less effect at the time of death than at the time of the operation.

It is easy to secure such variability either by open window ventilation with glass reflectors at the bases of the windows to prevent drafts, or else by admitting cool air through ventilators whenever it is needed. This is as important and vital to the patient as the preparation of his diet. The greatest difficulty is likely to be to make nurses and hospital attendants feel the need of being as conscientious in this matter as in the matter of diet.

Another necessity is the avoidance of drafts by the use of screens or other devices, and the careful watching of patients to make sure that they run no risk of getting chilled. If all this were done, and if the suggestions of the first part of this paper were carried out, it seems fair to hope that an extremely powerful and effective agent would be added to the equipment of every hospital and every physician.

In the study of variability even more than of humidity wide cooperation is needed, and the author again asks for as many suggestions as possible.

Summary

With this we must leave the matter. The significant points are:

(1) Variability of temperature is as important as humidity, but its effects are obscured in winter when the extreme aridity of our winter houses is the dominating factor.

(2) Variations of temperature are more important at the time of an operation than at the time of death, although at both these times they have a large significance.

(3) Constant attention to variability during the entire time from an operation to the day of discharge from the hospital or sick room would apparently diminish the death rate by at least 20 per cent, in addition to the gain to be derived from proper humidity.

TO DIRECT RED CROSS HEALTH SERVICE DEPARTMENT

Dr. Erwin A. Peterson of Cleveland, Ohio, who has been named director of the newly-created special health department of the American Red Cross to direct certain phases of the organization's health conservation program.

DR. ERWIN ALBERT PETERSON, recently appointed director of the Health Service Department of the American Red Cross, is a graduate of Ohio Wesleyan University and of the Medical Department of Western Reserve University of Cleveland. He has had an extensive experience as an educator, a social worker, and a health executive, having been head worker of Goodrich Social Settlement for several years, and a teacher and director of the School Health Department of the Cleveland public schools, where he built up one of the strongest departments of the kind in the country. Dr. Peterson served as major with the American Red Cross Commission on Tuberculosis to Italy, during the war, and directed the Educational Hygiene Department. He is intimately acquainted with the different types of communities with which he will have to work, as he was born on a farm, spent his later boyhood in a town of less than 10,000 inhabitants, and after leaving college lived in a city. Dr. Peterson brings to his work a technical training supplemented by a very valuable social and educational experience. He is now located at National Headquarters, American Red Cross, Washington, D. C. The plan of the work which he is to undertake calls for cooperation with other existing health promotion and disease prevention organizations throughout the United States, the Red Cross acting alone where no other health agency exists, in an effort to reduce the high mortality due to preventable disease, and to improve general health conditions. Public health nurses will be assigned to many small communities.

A HOSPITAL DISTINGUISHED BY BEAUTY OF GROUNDS, STRUCTURE, AND INTERIOR

By the REV. JOHN O'GRADY, Secretary, Committee on Reconstruction, National Catholic War Council, Washington, D. C.

THE Misericordia Hospital, Philadelphia, Pa., is notable for its beauty of structure and for its location in a section of the city miles from any other hospital, and right in the heart of a manufacturing district. At present the hospital has a capacity of 200 beds, but this will be increased to 1,000 when it is completed. The building as it now stands consists of two-thirds of the main building, the first floor of the kitchen building, and the laundry and laboratory building.

The hospital may be seen from some distance as it is built on slightly elevated ground, and its approach is made even more attractive by brick walks and flower beds. The grounds and building have contributed greatly to the beauty of the surrounding neighborhood, which is made up largely of middle-class homes of working people.

The location of the hospital gives it a peculiar opportunity for social service work, and should make it an important center. A large car works plant lies about eight blocks southeast, one of the cities' largest bakeries about the same distance to the north, and manufacturing plants of different types to the south. There are no hospitals to the south for miles beyond the city, although there are a few to the north and east of this section.

The entrance to Misericordia Hospital is one of unusual beauty. A marble staircase leads down from each side to the main office a half floor below on the ground level.

Entrance Hall Impressive

On entering the building one is impressed with its unusual beauty. A marble stairway just inside the entrance leads down from each side to what appears to be a big hotel exchange where one might register for expensive accommodations. In reality this is the main office of the hospital, with a Sister in charge at the desk. This part is not observed when one enters because the door is a half floor below on the ground level. The white marble and tile setting, the contrasting rich, dark mahogany furnishings, and the fine paintings all contribute to the beauty of this entrance hall.

The superintendent's office and the hospital reception room on opposite sides of the hall are quite as impressive. Although the furniture is simple in design, perfect taste is everywhere displayed. A large part of the furnishings have been given by interested people who, in their zeal to help the institution, have spared no money to secure just the right thing for the setting and for durable service. The corridors are furnished in tile and mrable, as are all the corridors in the buildings, except those in the basement. There are several private rooms on this floor in a corridor extending from the office. The private rooms are comfortably though not luxuriously furnished. As yet there are few private baths, but more will be included in the new wings.

The basement floor, which is really the ground floor, contains the dining-rooms for the entire staff, the superintendent of nurses' office, nurses' recreation room, x-ray department, pharmacy, emergency room, social service room, and a dispensary department composed of four rooms, in which seven dispensaries are operated at different hours. There is an operating room on this floor for all tonsil and adenoid cases, an examining room, a sterilizing and ether room, a dressing room, and a dark room for eye examinations. All

the rooms on this floor are of full-size window height.

The dispensary entrance is attractive insomuch as it opens from the garden by a double door into a very large square hallway. In one corner is the desk for the social worker who admits the patients, and assigns them to correct bench to await their consultations with the doctor. The total number of new cases referred to the social service department by the hospital dispensary during the month of November, 1919, was fifty-five, and 130 cases previously referred from this

The pharmacy at Misericordia Hospital is at the opposite end of the hall from the dsipensary, and is in charge of a Sister who fills all prescriptions.

source were continued during the month. Of the total number of new cases, thirty-three were ex-service men or members of their families, and fifty-nine were continuation cases of ex-service men. The hospital during the same month referred ten cases to the social service department, five of which were cases of ex-soldiers. The workers of the social service department interviewed 1,115 persons during the month and made ninety-eight visits. At the other end of the hall is the pharmacy window where prescriptions are filled by the Sister in charge. The patients pay a small sum of from five to fifty cents, or are given drugs free when necessary.

From the main hall, entrances open into the three wings, one of which contains the social service office, and some dispensary rooms. Another contains the emergency rooms, which have a complete operating room outfit, a restroom, and a supply room. The third corridor contains dispensaries.

The general kitchen and a diet kitchen for teaching purposes, the pantries, and cold storage rooms are in a separate wing on this ground floor, and are attached by what is known as a serving room. The serving room contains the food lifts to various parts of the house, closets for dishes, and a sink where part of the dishes are washed. The food is sent to the departments in containers from steam tables so that each floor serves its own trays with the food piping hot. The kitchen department is finished with a very attractive and serviceable brick which may be readily cleaned with a hose. The diet kitchen, which is much like a private kitchen and dietary, is in charge of a Sister who is experienced in that line. The general utility department, although adequate for present needs, will, of course, need to be enlarged when the building is completed to accommodate 1,000 patients.

The second floor has private and semi-private rooms with one, two, three or four beds.

The third floor might be termed a ward floor. The wards have from six to eighteen beds. One has fifteen beds, another eighteen, and the rest range from six to ten beds each.

The fourth floor is entirely given over to the Hog Island Shipbuilding accident cases, which are paid for by the plant.

Maternity Department and Operating Room

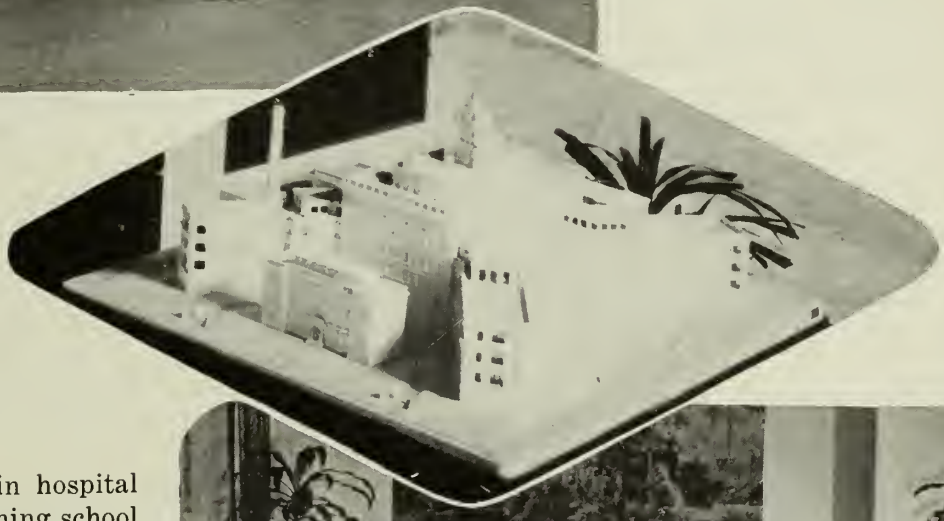
On the fifth floor are two distinct departments, the maternity department and the operating room suite. The maternity department contains an operating room, sterilizing room, delivery room, nursery, bath, one private room, two semi-private (one containing two beds and the other three), and one ward with six beds. There are also two bathrooms and a diet kitchen. This department is in charge of an experienced graduate nurse.

The splendid equipped sanitary kitchen on the ground floor.

The next corridor contains the operating room suite which consists of two operating rooms, a sterilizing room, ether room, supply room, cystoscopic room, one scrub and dressing room for doctors, and one for nurses. There are two re-

covery rooms where patients may thoroughly recover from ether before returning to the wards. The operating room is in charge of a Sister who is a graduate in nursing and has had several years of experience in hospital management and training school work in New York City. The nurses wear regular operating costumes similar to those worn by the doctors, and the Sister in charge also wears white.

On the sixth floor of the main building of the Misericordia Hospital is the roof garden, built in the architectural style of the monastery buildings of long ago, with beautiful, covered passageways supported by huge columns. Part of the roof garden is uncovered. On this floor are classrooms for the nurses, doctors' rooms, a compact isolation suite containing two bedrooms, a bathroom and a separate shower bathroom.



As one passes through the main entrance, his eye is attracted to a miniature model of the Misericordia buildings which gives a glimpse of the hospital as a whole and leaves an impression of stately beauty.

Rich tapestries and paintings blend harmoniously with the dark mahogany furnishings and delight the eye of the visitor to the reception room.

On the sixth floor of the main building is the roof garden, built in the architectural style of the monastery buildings of long ago, with beautiful covered passageways supported by huge columns. Part of the roof garden is uncovered. On this floor are classrooms for the nurses, doctors' rooms, and a very compact isolation suite, containing two bedrooms, a bathroom, and a separate shower bathroom. The main hall contains general bath and laboratory, and entrances to two fire towers.

Training School of Hospital

The Training School of the Misericordia Hospital has fifty students, all Catholic except two. The Sister in charge is a registered nurse. There are six Sisters who are graduate nurses and two more are in training. Two graduate nurses are employed who are graduates of Catholic hospitals, one as anesthetist and one in charge of the maternity department. Two Sisters are graduates in pharmacy and one is a laboratory technician.

The following figures give an idea of the work of the Misericordia Hospital since it was opened:

Number of patients admitted	2,692
Number of patients who died	176
Number of dispensary patients	11,003
Number of social service patients	295
Total number of patients treated in hospital and dispensary	13,695

The MODERN HOSPITAL

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A STUDY OF THE DISPENSARIES IN NEW YORK

THROUGH the courtesy of Dr. E. H. Lewinski-Corwin, the executive secretary of the Public Health Committee of the New York Academy of Medicine, we begin, on page 137 of this issue, the publication of three chapters of the study of the New York dispensary situation in which the Public Health Committee of the New York Academy of Medicine have been engaged during the past year. These three chapters were selected from the report because of their special interest to dispensary and hospital executives. They carry the captions: "Organization, Administration, and Equipment of Dispensaries," "Medical Organization," and "Book and Record Keeping."

The findings and conclusions of this important study are extremely interesting and enlightening but space limitations forbid more than a brief summary.

Some conceptions of the magnitude of the New York dispensary problem is gained from the figures given in the report. There are in Greater New York 153 licensed dispensaries in which about 4,000,000 treatments are given annually. To encompass this amount of work 3,680 sessions are held weekly with about 8,000 hours of actual operation. It is worth while noting, however, that out of the total number of clinic hours per week only a little over two and one-half per cent are held in the evening.

Eighty per cent of the patients came with complaints which required treatment in departments other than internal medicine. This means that a large part of the wage-earning class resorts to the dispensaries when in need of the services of specialists or special examinations and treatment for which they cannot afford to pay the private physician.

The study corroborates the findings of other investigations on the question of so-called "dispensary abuse." Two and two-tenths per cent of the patients were palpably taking undue advantage of the dispensaries; 79.4 per cent, because of their low economic status, were justified in seeking the dispensary for treatment; and the rest because they sought treatment which they could not get elsewhere at the prices they could afford to pay. This points to the need of pay clinics, and the committee suggests the adoption of a fee of fifty cents for such as are able to pay. This fee is within the reach of the majority of wage earners and would materially increase the present income of the dispensaries and enable them to provide necessary equipment, pay salaries to some or all of the physicians, and employ greatly needed clerical, nursing, and social service workers.

The committee found that in most of the institutions there was need of a clearly defined policy and of better executive direction. In the larger institutions it is felt that a full time executive should be employed.

No accurate figures were available as to the total amount of money invested in the dispensaries of New York City, nor were accurate figures to be had as to the cost of maintenance and administration. A conservative estimate, based on the reported expenditures for the year 1918 of thirty-four dispensaries in the United Hospital Fund, places the cost of maintenance and administration at $2,000,000 per year. Institutions representing such an investment and expenditure have a very definite responsibility to become institutions for efficient diagnosis and treatment, public health centers in their neighborhoods, and efficient training schools for doctors, nurses, and social workers, but thus far the New York dispensaries have failed to develop to the fullest extent their medical and educational opportunities.

In order to increase the efficiency of dispensaries, the committee cites some of the possibilities of efficient organization, and recommends reduction in the length of the period patients must wait prior to admission to the clinic. This can be

accomplished by a system of appointments, the feasibility of which has been demonstrated by the American Red Cross Clinic for Children at Le Havre, or by the principle of limitation of numbers. The application of either of these principles will not only reduce the waiting time of the patient but will prevent the swamping of clinic physicians with numbers of patients whom they cannot treat efficiently.

The committee deprecates the assignment of patients to different departments by lay registrars and, except where the diagnosis is obvious, recommends that a diagnostic division be organized to which patients may be referred for examination and assignment to the appropriate department.

To give patients the greatest benefit from medical skill, the equipment of dispensaries with all modern facilities for doing accurate diagnosis and efficient treatment is recommended. Reduction of the number of clinics and their re-grouping may sometimes help to improve the methods for assigning patients and also expedite this work.

To retain the sustained interest of physicians, a medical organization correlating the dispensary service with that of the hospital in such a way as to give the younger physicians an opportunity for advancement is recommended. In detached dispensaries it is recommended that arrangements be made with medical schools for organizing postgraduate instruction in order that the whole field of clinical work of the city may be permeated with the spirit of research and teaching, and in order that all existing facilities may be put to the most useful purposes.

Adequate medical records are regarded as essential to good work and the scientific use of clinical material. The committee, however, found that adequate physical examinations were recorded in less than one-fifth of the cases treated in the dispensaries investigated. The more general use of the clinic secretary for the smooth and expeditious running of the clinic is recommended as well as an effective follow-up system.

Investigations revealed an inadequate nursing personnel in the dispensaries and to remedy this situation the committee recommends that more of the dispensaries connected with hospitals adopt the plan inaugurated in some institutions where a part of the course in the training schools for nurses is devoted to dispensary work, the course being so arranged that each of the pupil nurses has several months' experience in the dispensary under the direction of a head nurse.

The committee recommends that a Social Service Department be incorporated in the administrative plan of the dispensaries and calls attention to the need for a concentration of effort on the part of all who are interested in social service work to secure a crystallization of function and procedure.

PHYSIOTHERAPY IN THE HOSPITAL:—AN OUTCOME OF THE WAR

OUT of the war have come many things, not all destined to survive. Now is the time to weed out what may be spared and to cultivate what is best worth while. Among many gains in surgery none has counted for more in sheer results than the coordination in after-treatment characteristic of the best war work. And in this after-treatment, as Dr. Frederic J. Cotton of Boston so convincingly points out in his article on "The Need for War-Trained Physiotherapy Experts in the Hospitals," on page 101, a very large rôle has fallen to physiotherapy.

In the plans laid down by General Gorgas in the summer of 1917, the note of physical reconstruction was for the first time clearly sounded in public and the importance of physiotherapy recognized. Hitherto this phase of therapy had received little consideration, in fact, the word was new to most of us. As now understood, physiotherapy takes in massage and other maniupulations, heat in its various applications, light in its various forms, hydrotherapy (let us say baths, hot, cold, medicated, electric—and be done with the old quackish title!), electrotherapy, exercise and drills (normal and corrective), and curative shop work.

In planning the department of physiotherapy, Dr. Gorgas had as his basic theory the grouping of all its component subdivisions into a coherent whole to be put at the service of the surgeon for the after-care of his patients—for the sort of after-care that spells results. Accordingly, the plan was worked out in an efficient manner on this theory.

In the beginning, almost insurmountable difficulties were encountered, due to the lack of suitable and trained personnel. Before the war there were, to be sure, a few good electrical specialists; there were many doctors with impressive, snappy, static machines of no earthly value in the office; there were many "bakers" abroad in the land. Hydrotherapists, though few in number, were eager and ready to cure almost anything, but by one method only. There were "physical culturists" and faddists in legions, but of genuine physiotherapists, there were few.

Most of the surgeons knew little about the possibilities of such work, but they learned a great deal about it because they were seeing the work

and the results on their own patients, and as they learned they grew enthusiastic.

The doctors assigned direct to the physiotherapy department got out of special ruts to which many of them had been subject, such as dependence on electricity alone, or baths alone, and by closer association with the surgeons, they got a clearer picture of the limitations and actual purpose of their work.

The next problem that had to be faced was the problem of securing women aides to work under the supervision of the surgeons. Before the war there were many women elaborately trained in a "system" of physical culture and massage, who had no inkling of what they were trying to treat, or what the relation of their work to that of others was. There were countless women, moreover, who did not have even this intensive, narrow training. The really intelligent and trained workers were but few and these were handicapped, on the one hand, by lack of proper equipment, and, on the other by distrust on the part of the doctors. But as Dr. Cotton points out, the war interests brought many applicants, and out of these the women of real quality were picked, registered, and given special courses of training in approved schools. The result was a goodly supply of women, not particularly experienced at the outset, but properly trained for work they had to do.

With the war ended and with the fact staring us in the face that we have more industrial cripples than war cripples, would it not be utter folly to allow these trained forces to become dissipated instead of using them for the rehabilitation of the industrially crippled?

If we are to use them in this manner, how are we to go about it? Such work does not lend itself readily to individual effort. In the war it was a coordinated job. It must be so in peace. That means it must be some sort of a hospital job. Is your hospital to-day equipped to restore the man with a broken leg to final usefulness as it should, to take full care of a case on which you do a nerve suture, or to restore a mangled hand to use after healing?

To-day we have as never before a knowledge of what to do, an experience in the practical doing of it, and a personnel of doctors and aides trained to the job.

The work is important and the cost is in no proportion to the results achieved. Dr. Frank Billings, while in the service as head of the Division of Physical Reconstruction, under the Surgeon General, gave it as his opinion that every hospital should have a department of physiotherapy just as it should have an operating room.

Is it not about time that the hospitals went about establishing these

DEATH COMES TO SIR WILLIAM OSLER AT OXFORD HOME

SIR WILLIAM OSLER—1872-1920

SIR WILLIAM OSLER, noted physician and author, died December 29, after an illness of several weeks at his home in Nordham Gardens, Oxford, England, aged seventy years. He was born in Canada and received his medical degree from the McGill University, Toronto, in 1872. It has been said that he was a "specialist in all branches of medicine." He was well known in the United States, having been professor of medicine at the University of Pennsylvania, and at the Johns Hopkins University, Baltimore, from 1884 to 1904. He resigned the latter position to become regius professor of medicine at Oxford, the highest honor in the bestowal of British institutions of learning. He was the author of many books of medical research and of philosophical studies, and his fame as a joker and as an epigrammatic and witty member of society was widespread. It was in 1905 at the commemoration day exercises at the Johns Hopkins University that Dr. Osler in an address spoke of the "comparative uselessness of men above forty years of age," which remark in garbled form went around the world and was the subject of criticism by the public and press generally. Dr. Osler, after remaining silent for a considerable period, declared in a statement that he did not say that men at sixty should be chloroformed, but that in his opinion, the telling work of the world has been and is being done by men under forty years of age. He, however, refuted his own theory by remaining at work until the end. He was knighted by King George in 1911.

departments, before the doctors, trained in physiotherapy, get back into their little special practices, and before this great group of trained and experienced aides drift back to their old positions or to new jobs for lack of opportunity in the work in which they have become expert during the last two years?

Is not your hospital going to have a physiotherapy department start this winter, as big as possible, with the best possible doctor in charge? If this is not possible, will you not, at least, employ a trained physiotherapy aide to work under the surgeon and to serve as a nucleus about which further development can grow?

SUBSIDIZING COUNTY TUBERCULOSIS SANATORIUMS IN CALIFORNIA

IN this issue of THE MODERN HOSPITAL (page 83) are published three interesting articles on the Arroyo Sanatorium, which is one of many county institutions subsidized by the state of California. For the information of those who are confronted with similar problems in other states, THE MODERN HOSPITAL gives the following brief review of events which led to the California "experiment."

In 1911, the writer was instrumental in having the legislature authorize the creation of a commission of five who were directed to investigate the problem of tuberculosis in the state and to recommend adequate measures for its control. The members of the legislature were much interested in providing better care for the tuberculous sick but marked differences of opinion existed as to the advisability of establishing state sanatoriums,—in fact, bills introduced at various times since 1904 failed to pass. At the session of the legislature in 1913, the Commission on Tuberculosis presented a constructive program which advised against the erection of state sanatoriums but advocated subsidizing county institutions for tuberculosis by the state. It further recommended the creation of a Bureau of Tuberculosis to be controlled by the State Board of Health, whose function, among other things, would be to visit county hospitals and inspect the service rendered to tuberculous patients. The example set by California resulted the following winter in the creation of similar bureaus of tuberculosis under state boards of health in New York, Ohio, and Wisconsin.

Subsequent investigations made by this bureau revealed intolerable conditions,—in many hospitals advanced cases of tuberculosis were not segregated but placed in general wards, in others the standard of care compared with that prevailing in the average almshouse.

Conferences with interested organizations were held by the Board of Health and it was agreed that the establishment of one or more state sanatoriums would be utterly inadequate to care for the large number of persons requiring proper hospital treatment. Hence in 1915, the legislature, upon united recommendations of interested agencies, adopted the "subsidy plan," which authorized payment of three dollars per week for each resident tuberculous patient to counties maintaining sanatoriums or tuberculosis departments in hospitals that complied with the standard of construction, equipment, and maintenance required by the State Board of Health.

In determining eligibility for the state tuberculosis subsidy, hospitals are graded by the State Board of Health according to location, construction, treatment and care of patients, and diet. Location and grounds count one to five points. Construction and type of building, one to twenty-five points. Treatment and care, one to thirty-five points. Diet, one to thirty-five points. A hospital must receive a total of eighty per cent to be eligible for the state subsidy.

Frequent inspections are made by representatives of the Bureau of Tuberculosis of all subsidized county sanatoriums and hospitals, which now exceed twenty in number, totalling over two thousand beds and representing over two million dollars expenditure in construction alone. When the standard of the institution falls below that required by the bureau, the state subsidy is discontinued until the causes which have been complained of are removed. Every assistance, however, is accorded by the bureau to the county institutions in maintaining and raising their standards; for example, the vocational worker who has developed occupational therapy at Arroyo Sanatorium is employed by the state. The California plan of state subsidy following standardization has been so eminently successful within the short period of four years that the county tuberculosis institutions now compare favorably with first-class private sanatoriums.

R. G. BRODRICK.

ORGANIZED COMMUNITY GIVING FOR HOSPITALS

THE development of community unions or welfare federations for the collection of maintenance funds for charitable and social welfare work as well as for hospitals, probably has been definitely established as a sequence of the community inspirations provided by the Red Cross "war chests" or "patriotic fund" drives. The collection of Red Cross funds by the united grouping of community and municipal organizations

during the war developed a machinery and background that has enabled several cities to provide a community plan of giving. Successful drives for funds for both local and foreign expenditures have been carried out with the cooperation of the Red Cross in several cities during 1919; notably, Detroit, Cleveland, and Rochester.

The rapidly growing industrial cities present a new problem in hospital work, in that existing hospitals have failed to register an increase in bed capacity corresponding with the increase in population. Bequests or gifts for the erection of additions to existing hospitals have not been forthcoming, nor have new institutions been provided to meet the emergency. The city of Detroit is an example. A recent survey conducted under the auspices of the Detroit Community Union demonstrated that there was an immediate need for 4,000 beds. It was shown that during a stated period the city had increased in population 500,000, while the increase in hospital beds was less than 1,200 (comprising all classes of hospital accommodations, including tubercular, contagious, and maternity).

In many cities, organizations that have been dependent upon local solicitation have been provided for by organized community giving. The success of these plans has drawn attention to this method of giving as applied to the community needs for hospital additions. If the collection of maintenance funds for established hospitals and civic charities is a logical and economic procedure, the same argument applies to the collection of funds for the capital expenditures of hospitals. Economic conditions, local requirements for accommodations of industrial cases, and civic and community interests demand that organized community effort be made to supply the shortage of hospital beds. The inclusion of a program of capital expenditures in the community budget enables the boards of trustees of hospitals to take into partnership the entire community, who annually would furnish the sinews for a carefully checked and approved budget of capital expenditures for the general hospitals and charitable organizations. The program should be all inclusive, embracing the Young Men's Christian Association, the Young Women's Christian Association, Salvation Army, Hebrew and Catholic charities, and public hospitals, even though privately endowed.

The objection has been raised that community giving will result in limitation of private benevolence. This can be met with the statement that instead of a small part of the community, the entire community will be uplifted and raised to the level of the good Samaritan. The business and industrial element, in one city at least, has given the plan definite and substantial endorsement. Instead of sixty to eighty tag days and isolated campaigns for funds, the process of giving can be encompassed in one check. The compression of eighty campaigns for funds into one has an economic appeal that is unanswerable in the saving of time and expense for solicitation.

Community giving for maintenance or capital expenditure should have the organized cooperation of the local Red Cross, the membership rolls of which may be inclusive therein. What greater peace-time function can be assumed by this noble organization than that its thousands of local chapters participate officially in the community campaigns as outlined above. Instead of gradual development along economic lines, many hospitals have heretofore waited for their patron saints to die and leave them bequests. Is it not time that the expansion of hospitals be dependent on more highly organized endeavor than the benevolence of a few?

Practically no hospital construction was carried forward during the war, and the opportunity for the utilization of community endeavor has never been presented more forcibly than at present. Let us strive for community giving for capital expenditures of hospitals and charitable institutions, and attempts to establish for all time a logical and economic system of expansion to meet the needs of the community.

W. L. Babcock.

SERIES BY MISS CHAPIN TO BE CONTINUED IN APRIL

THIS month's installment of Miss Mary Katherine Chapin's series of article on "Some Small Communities and What Their Hospitals Mean to Them" has been delayed and would ordinarily appear in the March issue of The Modern Hospital. Inasmuch as this issue will be devoted largely to articles reviewing events and progress in the various departments of hospital life during 1919, Miss Chapin's series will be continued in the April issue.

ANNUAL REVIEW NUMBER IN MARCH

IN the March issue we shall publish a group of articles reviewing developments and progress in the hospital field during 1919 from a number of angles. Among the subjects upon which articles will appear are nursing, dietetics, dispensaries, standardization, nursing education, social service, hospital architecture and construction, hospital administration, drugs and chemicals, x-ray, occupational therapy, and venereal

diseases. This issue will also contain an interesting article by Lieut. Col. Floyd Kramer and Capt. Russell H. Kettell giving a comprehensive review of the organization of the army hospital service during the world war.

HOSPITAL SURVEY IN INTERCHURCH WORLD MOVEMENT

By DR. FRANK CLARE ENGLISH, Superintendent, American Hospitals and Homes Division, Interchurch World Movement, New York City

The Interchurch World Movement is making a survey of the hospitals of the Protestant Evangelical churches in the United States. This movement is only a year old and has grown with marked rapidity. Nearly 1,400 people are at work in the offices in the Greenhut Building in New York City, and in the field. The Interchurch Movement has as its aim not church unity, but cooperation in seeking common objectives, through methods best suited to each denomination, by twenty million Evangelical Protestants in the United States.

The first and great task of the Interchurch World Movement is the survey of the fields and work of the churches in all departments, in order that methods and needs may be made plain. When completed, this survey will be published in several volumes which will set forth the work of the Protestant Evangelical churches of North America in every continent of the world. As a result of this world survey, a budget will be formed to care for the needs of the work in terms of men and money. The Hospitals and Homes Division of the survey is concerned with the hospitals, homes for the aged, and homes for children, in the United States, Hawaii, Alaska, and Porto Rico.

Survey to List All Hospitals

The survey of the hospitals of the Protestant Evangelical churches alone justifies the work of this division of the Interchurch World Movement, as it was found that few denominations have published lists of their hospitals. Through research workers, correspondence with church boards, records from state charities, letters to 3,100 county survey supervisors, and through the hospital field investigators, a list is being compiled which will give the name, location, and denominational control of the hospitals found. All hospitals will be listed, but only those of Protestant Evangelical denominations will be surveyed and included in the financial askings.

The method of the survey is first by a letter of explanation and a five-page questionnaire sent to each hospital. The questionnaire is to be filled out by the superintendent and certified to by the local hospital board. The second approach to the hospital is by the field investigators, who gave a written report of each institution visited. Fifteen specially trained men are now making such visits in the United States and will ultimately inspect each hospital.

How Budgets are Prepared

The reports secured by questionnaire and investigators are studied by office experts and from these an estimate is made of the work and needs of each institution. When the results of these investigations are tabulated they are reviewed by an Advisory and Budget Committee, made up of institutional men of the various denominations. All the findings and estimates will be placed before a meeting of the boards of all the Protestant Evangelical denominations. A budget of askings will then be adopted and a date set for a united campaign to secure adequate funds. The thoroughness and fairness of this method is shown in that the work and asking of each hospital will have been passed upon by its own local board, by the field investigator, by its own church board, by the survey office, by the Advisory and Budget Committee, and finally by the "All Board" meeting.

Object of Hospital Survey

The objects of the survey are: (1) To obtain information concerning the organization of each institution. (2) To secure a statement of the property and equipment of each hospital. (3) To ascertain the extent of efficiency, economy, administration, and adequacy of financial support. (4) To ascertain its needs in order to fulfill a larger mission with a greater degree of efficiency. (5) To estimate what it could accomplish with enlarged facilities.

Not all the hospitals are participating in the askings through the Interchurch World Movement. But it is greatly desired that each institution receiving a questionnaire shall fill it out, so that the printed survey volume will record its location and work.

The facts already revealed are startling and are stirring the church. Good authority has been given out that of the 7,000 hospitals of all character in the United States. The Protestant Church possesses less than 700 hospitals in the United States, and has a great opportunity for service for God and humanity. This limited number of hospitals has accomplished great things. It is estimated that they have given away $10,000,000 annually in free service and care for a million patients each year. Yet 5,000 sick are refused every day, because of lack of room.

The church is awakening to the great service rendered by its hospitals. They are a great agency of Americanization. Foreigners and Americans are treated alike. One hospital in New York City treated patients of forty-three nationalities last year. Two out of three of these were foreign born. Reconstruction is a fact of peace-time hospital work, as well as of war-time. Men are made fit for the world's work. The church finds its great opportunity for evangelization through its hospitals. Patients are in great need of the cheer, courage, and hope of the gospel message and are most receptive. No finer ministration of the Christ can be found than healing the sick, comforting the sorrowing, giving hope to the dying, as did the Great Physician. One church hospital has as its motto, "All healing is divine healing." Christ is ministering today in the hospitals. There might be placed over the entrance of each hospital these words—

"Not race, not money, nor creed,
Need alone opens the door."

Where is Christ's work better shown?

Objectives of Interchurch World Movement

Some of the objectives of the Interchurch World Movement are: (1) To enable the hospitals to be more efficient. (2) To establish hospitals for the aged infirm. (3) To aid tuberculosis hospitals in favorable climes. (4) To provide sanitariums for healing and rest. (5) To provide hospitals for incurables. (6) To assist new hospitals in needy centers. (7) To provide clinics for children's welfare. (8) To conduct dispensaries and clinics for the treatment of venereal diseases.

The realization of such a program will include cen-

tralized, specialized, and standardized hospitals, and the discovery of reinforcement for home and foreign mission hospitals.

With other work and needs, that of the hospitals will be thoroughly presented to the churches throughout the United States. Seventy-two state conferences have been held during December, 1919, attended by delegates from the counties of the different states. Beginning January 28, 1920, a Training Conference for all Protestant pastors is being held in each capital. A National Conference of Laymen will be held in Pittsburgh, January 31, and February 1 and 2, 1920. Besides these, county and township conferences are to be held. In all of these the work of the hospitals will be presented. The Protestant Church, when shown the appalling needs, will care adequately for the hospitals.

WOMAN'S AUXILIARY HOSPITAL BOARD REVIEWS ACTIVITIES

The record of the achievements of a band of women during thirty-five years of faithful endeavor in the ever-broadening field of hospital work formed one of the principal features of the program at the thirty-sixth annual meeting of the Woman's Auxiliary Board of the Presbyterian Hospital, Chicago, which was held in the chapel of the hospital, Monday, January 5, 1920. About 175 of the more than 200 members were in attendance.

After the invocation and the reading of reports, Mrs. Patterson, chairman of the nominating committee, nominated the following officers. They were unanimously elected.

President, Mrs. Perkins Bass; vice-presidents, Mrs. David Graham, chairman, Helen B. Drake, and Mrs. Henry M. Curtis; recording secretary, Mrs. C. Frederick Childs; corresponding secretary, Mrs. Frank Penfield; treasurer, Miss Mary Reed; assistant treasurer, Mrs. William R. Tucker; honorary presidents, Mrs. McCormick, Mrs. O. S. Newell; honorary vice-presidents, Mrs. Timothy Blackstone, Mrs. William Blair, Mrs. E. A. Hamill, and Mrs. Frederick W. Crosby.

Mrs. David Graham, the retiring president, devoted eleven years to the duties of the office, and it is largely due to her efficient leadership that the affairs of the Board are in such a prosperous condition. Instead of the customary annual report, Mrs. Graham, as the crowning labor of her long incumbency, compiled an historical sketch of the Presbyterian Hospital with special reference to the work of the Woman's Auxiliary Board during the thirty-five years of its existence.

The sketch contained a vast amount of statistical information, so cleverly interwoven with reminiscences of events, both humorous and pathetic, and of the women who have given of their time and talent throughout the years, that, instead of being a dry as dust report, it was a living human document which will be a valuable acquisition to the hospital's annals. Of special historical interest is the following:

The charter of the Presbyterian Hospital was granted in 1883, the organization being completed in December of the same year. Its inception was the need of Rush Medical College for a hospital for clinical teaching, and the first building was constructed on land owned by the college just north of its building. It was the seventh of any importance in the city, the others being Cook County, Mercy, Michael Reese, St. Luke's, St. Joseph's (and Alexian Brothers. The first donations were from influential Chicagoans. Mr. Tuthill King, whose son-in-law, Dr. Joseph P. Ross, was a member of the faculty of the college, gave the first $10,000. Rush Medical College reserved the right to appoint the hospital staff. The matter of further financing the hospital was taken up the following year by the Presbyterian Social Union, with

Mrs. Perkins B. Bass, Evanston, Ill., newly elected president, Woman's Auxiliary Board, Presbyterian Hospital, Chicago.

the result that Hospital Sundays began to be observed in the various churches, when contributions were received for the institution.

"At the same time," said Mrs. Graham, "a Ladies' Aid Society was formed, for no sooner was the Board of Managers organized than its members found they could not stand alone, but, like Adam, needed a helpmate, and so loud was their cry that in May, 1884, Eve appeared as personated by eighty-two energetic Presbyterians equal to the emergency." The dues were a dollar a year, and the meetings were held elsewhere until the new chapel in the present building was ready for occupancy.

The name of the organization was changed in 1908 to "The Woman's Auxiliary Board of the Presbyterian Hospital."

From the first, the main work of the Board has been looking after the furnishing of the hospital, and the various additions which have been made to it, but many other duties have also fallen to its portion.

The original capacity of the hospital—eighty beds—was increased in 1887 to eighty-five beds by the building of the Hamill Wing, which cost $12,000. The Jones Memorial, erected and furnished by the heirs of Daniel A. Jones at a cost of $110,000, with an endowment of $55,000, was dedicated in 1889, and increased the estimated value of the hospital to $250,000, and its capacity to 225 beds.

Both the membership and the activities of the Ladies' Aid Society were increased, and various ways had to be devised to meet the growing demands of the hospital in furnishings. At first the money and donations were solicited. Later, associate memberships added materially to the fund; Tag Day was inaugurated and the treasury

in this way was enriched $25,000. Tag Beds Nos. 1 and 2, with money on hand for the third, indicate the use to which part of the money raised in this way was put. A wet nurse has also been supported by the Tag Day funds, and a pre-natal nurse is to be employed.

Beginning with 1895, the Board directed its energies toward raising money by means of a series of concerts, for which such artists as Melba, Nordica, Fremstad, and other operatic stars were secured. Many amusing incidents lightened the drudgery of these enormous undertakings. For instance, Fremstad failed to arrive on schedule time and when she did put in appearance gave way to a fit of "temperament" because the accompanist had not been kept waiting twenty-four hours at the hotel in order to be there when she was ready to rehearse. The happening increased the strain on already frayed nerves, but is amusing in retrospect. The expense of these entertainments was heavy, but in consequence, large sums which were badly needed found their way into the hospital treasury. Five concerts netted the Ladies' Aid $13,131.

Money contributions for delicacies—particularly fresh fruit—have amounted to more than $15,000, to say nothing of the thousands of glasses of jelly, and the thousands of quarts of grape juice (and other beverages which led some to say that the hospital had not gone dry) which have been donated.

In 1890, the Society contributed $1,094 toward the first ambulance, which did service for four years. An annual payment for free beds by the Society, the endowment of a child's free bed, and the endowment of rooms and beds by individuals have been some of the results of the activities of the members. At the suggestion of the superintendent, Mr. Asa S. Bacon, they secured the endowment of a room for missionaries and ministers home on furlough. Then there are the "Sunshine" Bed and the "Cheer Up" beds, all permanently endowed through the efforts of the ladies. Sunday schools have been interested and are also giving valuable aid.

The erection of the Private Pavilion in 1908 increased the capacity of the hospital to 275 beds, which also increased the work of the Auxiliary Board, as it was then rechristened.

Beginning with 1910, the raising of money was largely provided for by the Pledge Fund, and through this $35,660 has been added to the treasury of the Woman's Board. This Pledge Fund Committee was succeeded in turn by the New Contributors' Committee, which in four years secured $6,500. Indicative of the careful manner in which the Board has managed so that the most might be secured with the least possible outlay, is the fact that since 1915 it has come into possession of seventy dozen teaspoons and seventeen dozen dessert spoons by the collection of soap wrappers.

Social Service came in with the election of Mrs. Graham, the Presbyterian Hospital being the first hospital in Chicago to take up this kind of work. The plan in force at the Massachusetts General Hospital was the one followed. This is supported entirely by the Woman's Board. The Board also pays part of the expense of the Occupational Therapy Department which was established as an adjunct to Social Service.

Feeling that the accomplishments of the hospital as a whole should be made a matter of record, Mr. Bacon, in 1909, urged the ladies to begin the publication of *The Bulletin*. "This quarterly was never intended as a money venture," says Mrs. Graham, "but so valuable is it as history, that if its expense to the Board were doubled, it would be worth its cost."

Deciding to put some of the funds where they would do permanent good, the Nurses' Alumnæ Association was presented with $5,000 for the Mary Byrne Memorial Room, and $5,500 was donated toward the Ministers' and Missionaries' Room. Lately, the Board has joined with the nurses' student body in creating a fund known as the Gladys Foster Memorial in memory of the second nurse to die while in the Training School. This fund will be used for a special nurse for ward patients. There is one other endowed nurse for ward patients, the fund being known as the Helen B. North Fund.

With the institution of the Pledge System, the method of appropriating funds for various obligations was changed. The money obtained through the Pledge and Contributors' Funds is not used the year in which it is collected, but is held over as a basis for the next year's work. To this amount is added that collected through Associate Memberships, Active Dues and the Linen Fund, so that "having our cloth on hand, we can cut our garment accordingly," reads the report.

And so the work of this band goes on, a work worthy of emulation by women all over the land. The records show a grand total of $369,536 collected during the thirty-Associate Memberships, Active Dues, and the Linen Fund, five years of its existence.

In September, 1884, the Presbyterian Hospital had forty-five beds, one intern, eight nurses, and a few em-

Retiring President, Mrs. David W. Graham, who for eleven years led the Woman's Auxiliary Board of the Presbyterian Hospital along the paths of progress.

ployees. In January, 1920, it had 437 beds, 230 pupil nurses, twenty-nine head nurses, 255 employees in the hospital building, and forty in the nurses' home. It cares for approximately 10,000 patients annually and has cared

for 131,173 patients, of which a fourth have been free.

"The first organized charitable work done by women in the United States was begun in Philadelphia in 1795, by an influential Quakeress who established a charity school for girls, and a relief society which is still in operation there, and," reads the report, "we are a portion of the rich fruitage of that seed. We also know that our success and usefulness are due to our unity of purpose and action. Created for business, we have adhered to the original purpose. And in the words of the president of the Board of Managers, the work of the Board is epitomized: 'In all ways an able assistant to the Board of Managers, in many ways undertaking and accomplishing work that the Board could not do, the Woman's Auxiliary Board is constantly developing in efficiency and importance.'"

BLIND MEN TAUGHT NEW OCCUPATIONS AT CHICAGO LIGHTHOUSE

By EDITH L. SWIFT, Chicago Lighthouse.

When a blind man's brain is trained to receive messages through sensory channels other than his eyes, that man is once more a normal human being, handicapped to be sure, still not a person to be pitied as one without spiritual hope or an industrial future.

The Chicago Lighthouse at 3323 West Twenty-second street, conducted by the Improvement Association for Blind People and maintained by private initiative and voluntary subscriptions, is the only industrial training school for the adult blind in Illinois.

The factory employment department was opened at the Lighthouse in June, 1919, and Capt. Earl Douglas, recently returned from France, was engaged as factory instructor. Through the cooperation and courtesy of employers of labor, Captain Douglas has been able to obtain openings for the blind in various factories in Chicago, and the blind men are taught in the factories the very work at which they are to be employed. Blindness is considered a thirty per cent handicap, therefore the prospective employee is given special training for his work from the point of view of time, motion, and fatigue study. Confidence is implanted in the blind man by the factory instructor as he works with him, and gradually his self reliance is built up. The instructor keeps in touch with the men through occasional visits, and when need for additional instruction develops he is able to continue the training so that the blind employee may not be limited to any one kind of work. Following this method, the Lighthouse has drilled blind men and women to take their places in the industrial army and to hold factory positions in fair competition with sighted workmen. Industrial work will place between $12,000 and $15,000 in the hands of the blind in Chicago this year.

Blind man sorting scraps of rubber at the United States Rubber Company, Chicago. The Chicago Lighthouse teaches a new employment to the blind man so that he may become self-supporting. (International Film Service.)

Blind men have been placed by the Lighthouse in the following employments: sandpapering, polishing, and wrapping furniture; assisting core makers in foundries; assembling ringers on telephones; filing operations; tapping ball joints; tuning pianos; folding paper boxes; picking rubber from canvas tire patches; sorting copper from asbestos waste; assembling commutators for motors; filing regulating discs on automatic telephone dies; assembling phonograph arms; packing electric curling irons and other small articles. Since June, 1919, men and women have been placed in industrial positions and trained to do definite operations in the following Chicago factories: Automatic Electric Company, Balkwill & Patch Furniture Company, Barnhart Bros. & Spindler, Brunswick-Balke-Collender Company, Cable Piano Company, Edison Electric Appliance Company, Harvard Electric Company, Illinois Moulding Company, Johnson Chair Company, Karpen Furniture Company, C. J. Lawrence & Bro. Paper Box Company, Victor Gasket Company, Western Foundry Company.

The Chicago Lighthouse teaches women weaving on hand looms. The women memorize the patterns or read them in Braille, the sighted instructor selects the colors, and the weavers can then go on alone, with occasional supervision. Silk and linen textiles are woven in marvelously intricate designs. (International Film Service.)

The kind of factory operation listed above is not suitable for all types of blind people who seek to become self-supporting through Lighthouse activities. For blind people who are capable of learning the trade of reed worker a shop is maintained at the training school at the Lighthouse. The pupils must have a certain deftness of fingers, a love of the craft, and a willingness to give several months to learning the trade. The Lighthouse pays a flat wage during the training period, and graduates, at the end of their instruction, are accepted

Blind man learning massage under the direction of Dr. Peter J. Peel, at the Chicago Lighthouse. Through the cooperation of Dr. Peel, eight blind men and women have learned to give massage, at the Lighthouse. (Photo by Koehne, Chicago.)

at the Garrett Go-Cart factory as regular employees. The product of the Lighthouse work shop goes to the Garrett factory which makes go-carts and baby wardrobes. Seventeen men have been trained in reed work at the Lighthouse and sent to the Garrett factory during 1919. Thirteen men and eleven women are now being trained for the Garrett Factory and will receive the same pay as do the sighted employees.

Women Weave Textiles on Hand Looms

For women who need merely a supplemental wage, the Lighthouse teaches weaving on hand looms. The women memorize the patterns or write them in Braille and once the choice of colors is determined by the sighted instructor the weaver can carry on alone, with occasional supervision. Silk and linen textiles are woven in marvelously intricate designs which are a far cry from the old time rag rugs woven by the blind. The product is absorbed by the Highland Park Community Shop and through orders which are sent direct to the weaving shop.

Through the cooperation of Dr. Peter J. Peel, eight blind men and women have been taught how to give massage.

The Chicago Lighthouse has proved to the satisfaction of its board of directors that the blind beggar must give place to the intelligent, normal workman, handicapped but unafraid, because his other senses have been trained to offset his sightlessness.

NEW BOOK ON MEDICAL RECORDS SYSTEM IN THE HOSPITAL

Dr. T. R. Ponton, director of Medical Records, Vancouver General Hospital, for some time has been working on a publication which covers the system of obtaining and preserving medical records in hospitals, according to the system worked out in the Vancouver General Hospital. There have been so many demands for the medical record forms used in this hospital that Dr. Ponton feels that there is need for such a publication. The book will contain a complete description of the entire system, the forms used for medical records, and a full discussion of how to overcome the difficulties encountered. The book, which will probably appear some time in February, will be of interest to all hospital administrators.

THE GROUP PRACTICE PROBLEM

By OTTO V. HUFFMAN, M.D., Dean, Long Island College Hospital, Brooklyn, N. Y.

During the past twenty years there has been growing in the minds of many physicians a vague idea that the practice of medicine could be conducted more efficiently and with less inconvenience to both the patient and the physician if a group of specialists practised as a unit; that is, if the members of the group had offices together and made available their services as needed in attending calls or in caring for patients in the hospital. The idea has appealed to the busy general practitioner who often feels the need of the help of a specialist; it has appealed to the specialist—the surgeon, the internist, and so forth—who finds it necessary to refer patients to specialists in branches other than his own; lastly, it appeals to the common sense of all that it is better to have such a group with offices together. In the case of a hospital with a close staff, it certainly would be a great convenience to the hospital administration and to the patients to have the offices of the entire staff located close at hand, where all could be readily consulted.

In the larger cities where the hospitals are centrally located and are served by members of the staff only, there is nothing essentially new about the idea of group practice, because it is already in the hospital. Most dispensaries constitute group practice. Here the idea is taking form that the group should practice as a group in relation to their private patients outside; that, in the case of the hospital staff, it should have its offices in the hospital or near by for the convenience of all concerned; and that in the case of the dispensary staff, it should apply the same economy of time and energy in private practice that it does in the dispensary.

In the smaller cities where the hospitals are open to all physicians and surgeons or where they are not centrally located, the idea of group practice is confined largely to office arrangements. Here it should lessen overhead expenses and provide more extensive equipment. More extensive equipment makes it possible to give satisfaction in a wider variety of cases than before, because a physician alone is apt to have too meager an office equipment.

Group Practice As a Partnership

So much for the vague idea of group practice that is taking hold of part of the medical profession. With the large transient population in our big cities during recent years, there is a beginning demand for an institution to which a patient may apply for relief regardless of what his condition may be, and also that the institution take the responsibility of providing the "doctor" or the necessary "specialist." In other words, there is a body of busy men who, impatient of the delays of our old system, want a corporation to take hold of this matter and deal with it in an efficient and businesslike manner. Opposed to this new idea is not only well fixed custom and tradition, but laws in many states which forbid corporations to practice a profession. A group cannot practice as a corporation, nor can a corporation sell professional services. The service can be only personal. On account of this fundamental situation in regard to the law, the nearest

we can satisfy this demand for institutional responsibility is through a group practicing as a partnership. If a corporation could handle the problem, it would be a very easy matter to hire the necessary specialists on salary and to sell their services. In a partnership of several eminent physicians with large clienteles, it is easily possible to build up a group by paying salaries to the "lesser lights" because there is already a sufficient clientele to make a success of the group idea. But in the case of a group of young physicians who have not yet "arrived," I doubt very much whether they could make a success of the group idea in building up a practice. If they should omit having an internist and a general surgeon, they might succeed, since internists and surgeons would refer patients to them. This, however, would not be "group practice" because the group is not complete. Nevertheless, it would be an advance and a great convenience to all concerned.

Group Should Be Paid Salaries

The real problem which group practice should attempt to solve is this: how to provide all the personnel and equipment necessary for the diagnosis and successful treatment of the various diseases, and to provide this for a common fee. The present system is at fault because patients of moderate means may have their money exhausted before they have gone the rounds among the specialists—not only losing money but time. It can be conceded that a group could be brought together to work on some equitable basis of dividing this common fee, but if it is to be divided in proportion to the time spent by each on the case we would still have the disadvantages of the present system. The only solution in my mind is that the group should command sufficient clientele in the start to make it possible to pay salaries. Each man in the group could put his whole heart into his work just as full-time professors and other instructors do in academic and scientific institutions. Just as professors gave up the personal fee system in relation to their students, so could the doctors in relation to their patients. Both are forms of personal service.

NEW ADMINISTRATIVE HOME OF AMERICAN COLLEGE OF SURGEONS

The administrative home of the American College of Surgeons has been officially located in Chicago. At the twentieth meeting the Regents of the College accepted as a gift from Chicago citizens the building and site of one of the most dignified and costly residences of the city. The selection of Chicago as the headquarters of the college was determined by a vote of the Fellows of the college.

The location of the building on the corner of Cass and Erie streets is within walking distance of the loop district, which makes it of easy access to visiting surgeons.

South and west exposure of the new administrative home of the American College of Surgeons in Chicago, at Cass and Erie Streets, which was donated by patriotic citizens.

In construction the building is fireproof and the Bedford stone of which it is built emphasizes its Elizabethan architecture. The interior is finished entirely of hardwood and marble, the central staircase being of marble. The residence was built by Mr. S. M. Nickerson, former president of the First National Bank, Chicago, and is probably the finest building used by any medical society in the world.

Chicago Citizens Cooperated

The citizens of Chicago who cooperated with the Fellows of the college in making the gift include: James A. Patten, Robert F. Carr, Charles H. Wacker, S. B. Chapin, Edward F. Swift, Frank G. Logan, Edward B. Butler, J. Ogden Armour, T. E. Donnelly, William V. Kelley, William Thorne, Julius Rosenwald, Edith R. Mc-

Cormick, C. H. McCormick, State Street Association, William Wrigley, Jr., William O. Goodman, Illinois Steel Company, Edward Hines Lumber Company, G. M. Reynolds, George E. Scott, Charles L. Hutchinson, Congress Hotel, Keith Spalding, R. T. Crane, Jr., M. A. Ryerson.

BETTER EYE, EAR, NOSE, AND THROAT SERVICE IN HOSPITALS

By FRANK ALLPORT, M.D., Chicago.

Favorable working hospital conditions inspire ambitious efforts and produce good results. This statement includes all departments, but especially ophthalmology and otology, where small procedures are particularly significant, and where minute post-operative infection frequently demolishes hopeful expectations. Some fortunate ophthalmologists work in ophthalmic institutions where necessary details are habitually performed, but most specialists work in general hospitals where their necessities are meagerly supplied. The writer recently enucleated an eyeball in a high grade hospital where the anesthetist was a septic woman and the operative conditions were not even clean. The instruments supplied were an Allport mastoid retractor for a speculum, large abdominal forceps and scissors, and a sharp curved tenaculum for a strabismus hook. This hospital needs a magnification of vision concerning ophthalmology. Ophthalmic surgeons require mental concentration upon their delicate operations, and relief from care concerning such details as anesthetics, asepsis, instruments, and light. These conditions are only possible with familiar and well trained assistants, thoroughly acquainted with the operator and his desires. All instruments and appliances should be kept at the hospital and be constantly in order, so that the surgeon need not be compelled to transport his instrument from hospital to hospital. A surgeon's best work can be accomplished if performed in one hospital with a congenial and disciplined staff, and with a familiar and well ordered armamentarium and surroundings.

Ophthalmic surgeons should be allowed a separate ward for their patients in order to do the most efficient work. This ward, even if small, may serve as eye and ear headquarters, where instruments, drugs, and appliances are prepared and kept, where orders are dispensed, and where patients are examined, treated, and dressed. Intelligent and delicate-fingered nurses should be installed, to remain on this service as long as possible. Adequate accommodations eliminate the loss of efficiency which constant passing from ward to ward, new nurses, and ever changing drugs, droppers, cotton, bandages, and other necessities entail.

A carefully selected head nurse or superintendent should be in charge of the eye, ear, nose, and throat department, in conjunction with head eye and ear intern, and a first junior nurse. This head nurse (graduate) should be paid a salary and live at the hospital, and, after being carefully instructed, allowed to develop in ability. The junior nurse will be so instructed that she can look after the ward and take the place of the superintendent, if necessary. The most suitable intern is one who is a graduate in medicine, intends to specialize in ophthalmology and otology, will stay at least one year, and who has already served a full term as a hospital intern, preferably in the same hospital. He should be given as much personal operative work (under instruction) as possible, so that he may become proficient and satisfied with his position. He will be assisted by a junior intern, trained to act as his substitute, should occasion arise.

It is desirable to have at least one day in the week as a kind of operative clinic day, where charity and semi-charity patients can be operated upon, and where visiting surgeons may pass a few interesting and instructive hours. Thursday afternoons have been thus utilized for years at St. Luke's Hospital, Chicago. At this hospital

Lower entrance hall in the Nickerson mansion, which will form the medical hub of the world when the American College of Surgeons moves to its new quarters in Chicago.

there is a male ward of fifteen beds, with dining room, smoking room, lavatory, dressing, refraction, and treatment room. There are two day nurses and one night nurse. The female ward has four beds. The wards are always full to overflowing. Private room patients are always kept as much as possible on one floor. Upon the completion of the new hospital, all eye, ear, nose, and throat work will be done on one floor.

The question may be asked, how has this all been accomplished? The answers are as follows: first, by securing the interest and cooperation of Mr. Louis R. Curtis, the efficient vice president and superintendent; second, by maintaining absolute and undivided loyalty to the hospital, and by refusal to serve upon the staffs of other hospitals; third, by encouraging other reputable eye and ear surgeons to work at St. Luke's, thus magnifying the department and enhancing its importance and privileges; fourth, by being content with gradual growth, remembering that important evolutionary movements require time and patience.

RED CROSS PROVIDES MERRY CHRISTMAS FOR DOUGHBOY IN HOSPITAL

"Gee, I thought Santa Claus was all child's talk. But the Red Cross is the best little Santa in the world."

"Bud" Davis lay flat on his back in one of the general hospitals in the United States, and for the first time in months there was a contented smile on his face. He was still feeling the effects of that trip through the Argonne over a year ago. Close beside him hung a huge, white bag, the most conspicuous thing about it being the red cross on one side. It had been filled with gifts by some Red Cross workers who knew all about "Bud" and the hard fight he was making now.

It was the day after Christmas, and the big hospital had settled down again to its regular routine. But the memory of those extra "eats," the wonderful show, and the visits from various Red Cross women still lingered in the memory of doughboy and "gob," nurse and doctor, cook and corps man.

For a whole week the Christmas trees with their gay tinsel, candles, and bits of bright colored paper, were allowed to remain in the wards and convalescent houses as a reminder of the holiday season. It was the first Christmas many of the boys had spent in America for two years, and although they couldn't go home for it, the Red Cross managed to take to them something of the spirit of a good old-fashioned home Christmas.

In every hospital for service men—general, post, or base—a Christmas entertainment was planned. Sometimes it was a vaudeville show, a sing, a Christmas talk by some well known lecturer, or a concert—many of the hospitals had all of these things. At Camp Dix, N.J., a choir of sixty people from Philadelphia sang Christmas carols. Most of the big churches in Chicago volunteered the services of their choirs, while Judge Kenesaw M. Landis and other prominent men spoke at Fort Sheridan. The Chicago Athletic Association staged a boxing bout.

The gymnasium at Fort Sheridan, which was used for the Christmas party, was decorated in a forest effect. Two carloads of cedar trees were shipped from Green Bay, Wis., the Christmas tree land of the country. They were used on the walls and ceilings as well as standing upright, and were sprinkled with diamond dust and frost. As the boys entered, they might easily have imagined they were making a trip into a veritable Santa Claus land.

At the Great Lakes Naval Training Station, a Red Cross committee purchased small gifts for each patient and nurse. A wonderful community spirit prevailed in Denver, showing the whole-souled cooperation of the Denver people who were still able to make the Red Cross the "Greatest Mother in the World" to the boys who had to be so far away from their homes.

Wherever possible, convalescent homes, gymnasiums, and auditoriums were used for the Christmas celebrations, but the "sick-a-bed" boys had their fun in the wards. In the Atlantic Division alone (which includes New York, New Jersey, and Connecticut), about 5,000 boys were given a Christmas celebration by the Red Cross.

At the Fox Hills Hospital, Staten Island, 1,400 wounded heroes had the time of their lives from Christmas eve until bedtime Christmas night. The day began with the singing of the carols and ended with a fireside talk. A lively crowd of doughboys in various stages of convalescence, and the nurses talked over their various Christmas experiences and "swapped" stories of overseas, while some of the more energetic popped corn.

The Red Cross was as much a part of the fighter's Christmas as it was of his life in France—as it will be until he no longer needs its services. To the thousands of sick doughboys who are still paying for the war, the Red Cross made the twenty-fifth day of December a merry Christmas.

TRAINING SCHOOL FOR SUPERINTENDENTS STARTED AT VANCOUVER HOSPITAL

With the modest enrollment of one student, the Vancouver General Hospital began on January 1, a course of training for hospital superintendents. This student is a physician who has returned from the Front and has a natural aptitude as an administrator. He comes back with a partially disabled arm, and the Canadian Federal Government has arranged to have the Vancouver General Hospital give him a complete course in hospital administration which will mean not only lectures and demonstrations, but also practice in the detailed administration of each department of the institution.

The course will extend over eight months, six of which will be spent in an intensive study of hospital administration in the Vancouver General Hospital, and the remaining two months in traveling through Canada and the United States, visiting the larger institutions and taking in whatever conventions may be in session.

REPORT OF NEW YORK HOSPITAL BUREAU OF STANDARDS AND SUPPLIES

The tenth annual report of the Executive Committee of the Hospital Bureau of Standards and Supplies of New York City for the year ending September 30, 1919, has just been issued.

During the past year the Reverend George T. Clover, superintendent of St. Luke's Hospital, New York City, has been serving as president, Dr. Thomas Howell, superintendent of the New York Hospital, New York City, as vice-president, and Mr. Reuben O'Brien, superintendent of Manhattan Eye, Ear, and Throat Hospital, New York City, as secretary and treasurer.

On February 4, 1919, Mr. W. J. Forbes, who has been acting as purchasing agent for the bureau during the past nine years, retired from active service on account of ill health. The growth and success of the bureau has been largely due to Mr. Forbes' indefatigable efforts and efficient administration. He has been appointed consulting purchasing agent, and Mr. Philip Cross purchasing agent in his place.

The report is devoted largely to a discussion of agreements and supplements, special quotations, the treasurer's statement, and the organization agreement and by-laws of the bureau.

HEALTH PROBLEMS AMONG WEALTHY RURAL POPULATIONS

By ESTHER E. WICK, R.N., Field Nurse, Southwestern Minnesota Sanatorium, Worthington, Minn.

At first glance, this title may seem anomalous and inconsistent to the uninterested reader. To public health workers in the great agricultural sections of the Middle West and elsewhere, this problem will be recognized as a very real one.

In years past we have been wont to look upon undernourished children and neglected health conditions as unavoidable results of poverty. When we have seen poor, little, white-faced, round-shouldered children, we have deplored the fact that in a country full of food and great wealth such as ours, any child should not have enough to eat or should have to work so hard that he grows old before he reaches his teens. But we have always associated these conditions with actual need and the poor food and housing conditions of the cities.

It may be rather startling, then, to learn that as a result of health surveys of the schools, it has been proved that the rural school children of even the richest agricultural sections are less healthy and are handicapped by more physical defects than the children of the cities, including the poorest districts. This is true in spite of the widespread notion that country living is a panacea for all the ills of human beings.

Thus in school health surveys in different parts of the country, the percentage of physical defects runs relatively as follows:

City children (middle class and wealthy) 35% to 50%
City children (poor) .....60% to 75%
Rural children .....70% to 90%

Malnutrition, faulty general physical aspect, and incorrect posture are included in these figures. The wide range in percentages depends on whether the survey is an initial effort or whether health supervision has been in force for some years. The rural figures are taken from various counties in Minnesota.

Of course the city children of the poor would be much worse off were it not for the health supervision of schools by physicians and nurses, the accessibility of dispensaries and dental clinics, home visits in cases of illness, and the serving of milk and lunches to under-fed youngsters in school; and last but not least, the more or less effective instruction in the principles of hygiene and sanitation.

Cause of Physical Defects

By comparison, the opposite condition is responsible for the poor record of the rural school. There has been no regular health supervision in the past; there are no dispensaries or clinics near enough to be of any value. There is little or at best half-hearted instruction in hygiene by untrained teachers, and that little is given in an uninteresting way. Often the teacher herself does not dare to enforce rules of personal cleanliness, fearing the displeasure of the community.

Instead of being properly nourished, which could easily be accomplished with the materials at hand, the child is starved, not because he *lacks* food but because he is allowed to choke his system with indigestible stuff which he cannot assimilate. He is drugged with coffee, while nourishing milk and buttermilk is thrown to the hogs.

"But why should this be so?" asks someone whose experience has not encountered these conditions. "And being true, it should be easy to remedy these wrongs where there is no lack of money."

Did you ever try to tell a man who drives to town in a five thousand dollar automobile that he is not taking proper care of his family; and likewise one who cheerfully pays three or four or five thousand dollars for an addition to his herd of blooded cattle, or one whose registered hog sales equal in amount the salary of the president of the United States?

You did not and it probably would do little good if you did. Of course, cases are seldom so extreme but they do occur. Here is an example as encountered by the writer: in a rural school a nurse made an initial survey, examining every pupil for ordinary defects. A boy of fifteen was found with symptoms of tuberculosis, his teeth were decayed, his gums inflamed, and his tonsils discharging pus. He was mentally retarded and hardly able to walk the mile and a half to and from school. The nurse arranged for a clinic and the boy was thoroughly examined by a physician. He was found to have moderately advanced tuberculosis in addition to his other defects. A home visit was made by the nurse to urge immediate treatment, and the advantages of sending the boy to a nearby county sanatorium were pointed out. She explained his condition, his chances of recovery if given systematic treatment at once, and the chances against him if not cared for. The wealthy farmer in question admitted that his son never had had any ambition but attributed this to "his darned laziness." He had no money to spend for foolishness, he said, and he was not going to bring up a boy of his to lie abed pretending he was sick so long as he was able to be up. This man had just sold his two hundred acre farm at two hundred and fifty dollars an acre and was retiring from farming.

The chief reason for the "problem" among the wealthy farmers is that they still regard health conservation as a fad to give "busy-bodies" and "fixers" something to do.

Years ago the successful farmer "went in" for scientific feeding of the stock, for scientific fertilization of the soil, and for all the newer methods of farming. He is anxious to learn improved methods and proudly exhibits the results of his efforts at state and county fairs. He takes the best farm journals, consults the agricultural experts employed as county agents, and attends Farmers' Institutes whenever he has a chance.

How about this same farmer's children? Oh, that is nonsense. Children are born, grow up, or die as the case may be. If they live, he takes a certain pride in the fact. If they die, no matter how unnecessarily, he assumes it to be the Lord's will and thus shifts his responsibility. If he raised his stock and his grain on the same principle that he applies to his children, we would not need to worry about the wealthy farmer for there would be none.

It is all right for the ten-year-old to come to a breakfast of fried potatoes, griddle cakes, doughnuts, and coffee —and oh, the coffee they do drink! Then trudge a mile or so to an unventilated school house, probably crowded besides, and eat a cold, if not actually frozen, lunch at noon; then home at night to a heavy meal consisting of fried meat or pork, beans, potatoes, pie, and more coffee; then to bed in a room with three or four others and the windows nailed down tight.

This routine and these menus are not imagined; they are based on the replies of pupils to our queries regarding their diet and living conditions.

Besides the improper feeding, the teeth probably are

decayed or abscessed, causing suffering and poisoning of the body. Perhaps the nose is stuffed up with adenoids, causing mouth-breathing and deformed jaws; or enlarged and infected tonsils may be responsible for the frequent colds and other illness and inability to satisfactorily recover. Often a child has frequent headaches, is irritable, nervous, and backward in school simply because an easily remedied vision defect is present. No wonder these children are pale and undernourished, with the serious look of age upon their faces.

The same symptoms in a valuable animal would send the owner "hot-footing" to the veterinary. Since it is only his child, he lets him drag through the years until the child either succumbs or becomes one of the millions that belong to the same class as those rejected for military service as "physically unfit."

Well, then, what is the remedy? Oh, it is simple, very simple. But it should have been applied thirty years ago. Education is the answer,—a broad, practical, applicable education in all health and sanitation matters.

Public health instruction and supervision must be popularized. Individual health instruction must be given to the child, and through the child the parents will be reached, to a certain extent. This health instruction should be placed on the same basis as other school subjects in the curriculum. If Jimmie's grades were affected by his failure to observe the rules of personal hygiene, would not he or his parents see that he kept reasonably clean?

The study of hygiene and sanitation, personal hygiene, preventive measures against infectious disease, and the food needs of the body should be taught and given credit in school as well as manual training and arithmetic. Only through the school will we succeed in building a foundation for a healthy citizenry of the future. Good health is the cornerstone for the house of happiness and prosperity.

Convenient rural health centers where the best in medical attention can be secured should be the next step in public health progress. When the rural resident knows that his child will secure as competent attention as his city brother, he will not be so reluctant to have Johnny's adenoids and infected tonsils out.

The term "public health" is misleading. To the average individual any subject with that "public" tacked on before it, means something that refers to all the other fellows but not to himself. The wealthy farmer, as well as everybody else, must be aroused to consider public health from a personal viewpoint.

The farmer of today is a shrewd business man. If you don't believe that, try to get the best of him in a business deal. The stories of the sale of the Federal building in Chicago to a farmer for the sum of one hundred dollars, are not at all representative of the average farmer's business acumen. He is conservative but keen.

Prove to him that good health is good business and like business, requires careful thought and study of the conditions which govern it. When he realizes this, he will demand the measures that will secure to him and his family the best possible health, which is really the definition of "public health."

Ill health is costly to the individual, to the community, and to the nation. Good health is essential to happiness, to efficiency, and to good citizenship. It is procurable in nearly every instance through attention to the details in living. When these things are brought clearly before the rural producer of the essentials of life, will he be unconcerned? I think not.

He will demand health instruction and supervision of the schools as his privilege and right as a citizen. He will see that his community club secures health experts from time to time to lecture on prevention of disease and allied subjects, and he will attend these lectures as he now does those pertaining to successful farming. He will do this when he realizes that good health is the greatest asset in his possession and that to permit unnecessary ill-health in his family, is a sure way to allow the liabilities to pile up.

HEALTH MOBILE TEACHES HYGIENE

In a popular campaign which carries health education to the doorsteps of the people of Westchester County, N. Y., the Westchester County Chapter of the American Red Cross is teaching the health ideals of the Red Cross

The Westchester County, N. Y., "health mobile" is a picturesque feature of the campaign of health education being carried on by the Red Cross.

peace program in all the towns and rural districts in its territory.

The Westchester County "health mobile" is a picturesque feature of the campaign. One of the ambulances belonging to the chapter has been converted into a combination lecture platform and exhibition booth, and equipped with a complete Child Welfare Station. In this conveyance the chapter workers are touring the highways and byways of Westchester County, giving lectures and demonstrations.

Sometimes the exhibits are given in a vacant store, sometimes in the town hall or a parish house. In country districts, the exhibition, with its practical demonstration of scientific care of the baby, is given from the machine, with a group of mothers and children standing around the roadside. In places where there are public health nurses employed, the exhibit is placed under the direct supervision of these local nurses, and the country and state nurses act as assistants.

Child welfare is the chief object of the campaign, and besides educating the mothers in the scientific care of their children, young girls between the ages of eight and fourteen are being organized into a "Little Mothers' League," its members being taught to take expert care of the babies. Another feature of the campaign is the display of moving pictures on health topics, which always draws a large audience. The local health officer is usually the speaker while the "movies" which illustrate his talk are being shown.

Meetings, Conventions and Conferences

ORGANIZE HOSPITAL ASSOCIATION IN MICHIGAN

A call for a Michigan Hospital Conference to be held in Lansing, December 12 and 13, 1919, was issued by a committee of Detroit hospital superintendents. The letter follows:

Dear Sir or Madam:

A conference of Michigan Hospitals will be held in Lansing in the Senate Chamber on December 12 and 13, 1919.

This conference is called for the purpose of organizing a permanent Michigan Hospital Conference, and for the discussion of several subjects of pressing importance to the hospitals of the state. The following subjects will be presented and discussed:

1. The relation of state health insurance laws to general hospitals.
2. Legislation and training for junior nurses or nurse attendants.
3. The shortage of pupil nurses in hospital training schools.
4. Standardization of hospital compensation insurance charges.
5. Organization and training of hospital intern staff.
6. Use and training of nurse anesthetists.

Other timely subjects will be introduced if opportunity permits.

The first session will convene at 2:00 p. m. on Friday, December 12.

You are urgently requested to plan attendance at this meeting which may be of great importance to the general hospitals of the state.

Be sure to interest your trustees in this conference and have them authorize your attendance as a representative of your hospital. Hotel reservations should be made early. The two principal hotels are The Downey House and Kerns Hotel.

The letter was signed by W. L. Babcock, M.D., superintendent, Grace Hospital; Stewart Hamilton, M.D., superintendent, Harper Hospital; George E. Phillips, superintendent, Herman Kiefer Hospital; T. K. Gruber, M.D., superintendent, Michigan Mutual Hospital; Annie M. Coleman, R.N., Training School Inspector, Lansing, Mich., and William Bailey, M.D., superintendent, Receiving Hospital, Detroit.

The program as outlined above was carried out, the meetings being held in the Senate Chamber of the State Capitol. There were over seventy delegates in attendance, representing the various hospitals of the state. Detroit, Ann Arbor, and Lansing were represented nearly one hundred per cent.

A constitution with by-laws was adopted, modeled, to some extent, after the constitution and by-laws of the Ohio State Association. The membership qualifications were modified, however, to include institutional membership. The following permanent officers for 1920 were elected: president, Dr. Warren L. Babcock, superintendent, Grace Hospital, Detroit; vice-presidents, Father Michael P. Bourke, superintendent, Catholic Hospital, Diocese of Detroit and Grand Rapids, Ann Arbor; Miss Anna M. Schill, superintendent, Hurley Hospital, Flint; Dr. E. H. Campbell, superintendent, Upper Peninsula Hospital, Newberry; secretary, Mr. D. W. Springer, superintendent, University Homeopathic Hospital, Ann Arbor; treasurer, Dr. Herman Ostrander, superintendent, State Hospital, Kalamazoo; trustees (to serve three years), Dr. Stewart Hamilton, superintendent, Harper Hospital, Detroit; Mrs. Dudley Waters, member of board, Blodgett Hospital, Grand Rapids; trustees (to serve two years), Dr. Christopher G. Parnall, superintendent, University Hospital, Ann Arbor; Mrs. Harry B. Joy, member of board, Woman's Hospital, Detroit; trustees (to serve one year), Dr. J. H. Burley, superintendent, Burley Hospital, Almont; Miss Grace D. McElderry, superintendent, Hackley Hospital, Muskegon.

The discussion on the shortage of pupil nurses in training schools resulted in the presentation of a resolution which was unanimously adopted before the close of the conference. This resolution placed the association on record as definitely in favor of the following:

(a) The prompt appointment of a standing committee with power to act in inaugurating a publicity campaign in the interest of the training schools of the state, expense incurred to be borne by this association and prorated in the several communities by the committee.

(b) Recommendation that the State Board of Registration for Nurses allow a definite number of months' credit for pupils presenting college and high school certificates.

(c) Approval of the eight-hour schedule for pupil nurses in training.

(d) Recommending the utilization of existing agencies and authorizing the appointment of a committee to promote the cooperation of the Red Cross nursing service with the Visiting Nurses' Association, the Infant Welfare Nursing Service, and other recognized bodies, to develop such groups of household helpers in the several counties of the states.

Arrangements were made for the next meeting to be held in Detroit, in June, 1920, and provision was made to meet biannually in June and December. The permanent organization was named "The Michigan Hospital Association."

A Case Difficult to Diagnose

A clerk in a dispensary asked a young man who came in what was the matter with him. He replied, "Vel, yesterday, I vas seck from the *inside out*, but today I am seck from the *outside in*." Rather a difficult case to diagnose, but the clerk, who had been at the desk for nearly twenty years, was equal to it. He found out that the patient had had a big boil the day before which made him sick from the *inside*. It had been lanced; therefore he was now sick from the *outside*.

NURSING AND THE HOSPITAL

Conducted by CAROLYN E. GRAY, R.N.,
Secretary, New York State Board of Nurse Examiners,
135 E. 45th Street, New York City

RECONSTRUCTION OF HOSPITALS FROM THE NURSING STANDPOINT

By ELIZABETH A. GREENER, R.N., Superintendent of Nurses, Mt. Sinai Hospital, New York.*

On every side and from every source we hear of the problems of reconstruction and readjustment which hospitals and training schools face today. So general is discussion of this subject that one is reminded of a well known comment attributed to Mark Twain to the effect that "much is being said about the weather, but very little is being done." We are prolific in discussion, but slow to act and to initiate radical changes.

What is the matter with our training schools? We all state in our circulars, and presumably we all believe, that splendid and unusual opportunities are afforded in the field of nursing to the intelligent, cultured woman who wishes to prepare herself for a life work which is well worth while from the standpoint of personal satisfaction and service. Why is it, then, that training schools offering the opportunity of preparation for such work with little or no personal expense to the student are not filled to overflowing with the very best type of woman that the country can produce? On the contrary, from every side we hear of the constantly decreasing number of desirable and suitable applicants.

Another grave cause for concern and anxiety to those vitally interested in nursing education is the criticism that after three years supposedly spent in actual preparation and training for such work the graduates of our schools as a whole are not adequately prepared to go ahead with the important work which awaits them. Especially is this true, we are told, in Public Health work or work along executive or administrative lines.

So serious has become adverse criticism concerning the inadequacy of the present method of training nurses that, in the opinion of many of our best thinkers, the whole structure of nursing education is in danger of collapse unless radical changes are introduced, and introduced soon.

Conditions throughout the entire world have changed during the past few years as a result of the world's upheaval during the recent war. Hospitals and training schools need to keep pace with the demands of the day, although to many of us actively engaged in training school work it seems as if the necessary changes were never more difficult to accomplish than at the present.

One of our greatest difficulties is that produced by the shortage of applicants. In every part of the country hospital beds are rapidly increasing in numbers; new hospitals are being built and opened for the use of the public, each imbued with the definite desire to establish its own school of nursing; and within established hospitals each year more actual nursing service is being required in all departments. Without considering any increase in the number of hospital beds, it is probably safe to estimate that during the last four or five years there has been an increase of from ten to twenty-five per cent in the amount of nursing work which must or should be performed by nurses, not only in the hospital proper but also in its special departments, such as the dispensary, social service, x-ray, and physical therapy.

Any program of expansion, development, and progress in the training school necessitates a marked increase in the annual expenditures of the hospital, and, unfortunately, hospitals are already facing greatly increased financial burdens without any immediate prospect of proportionate increase in their income.

Because of the fact that the work of the hospital is humanitarian as well as educational in character, the physical welfare and nursing care of sick patients cannot be sacrificed, not even to the education of the nurse; on the other hand, neither can the education and physical fitness of our young student nurses be sacrificed to the needs of the hospital. Some of the most serious problems, then, that seem to be demanding solution are:

Problems Demanding Solution

(1) What immediate steps shall be taken to improve conditions and methods of training so that our schools will attract student nurses of the right type in sufficient numbers?

(2) How shall the hospital give adequate nursing care to its patients and at the same time make provision for the proper education of its student nurses?

(3) Who shall decide what plan of reorganization is best for the training school of today? How can such changes be enforced and regulated?

(4) Since in the last analysis the proper expansion of nursing education necessitates greatly increased expenditures on the part of the hospital, how shall sufficient funds be secured for such purpose?

Answering question number one, as to what steps should be taken to improve conditions and methods of training in order to attract student nurses of the right type in sufficient numbers, first and most important is the shortening of the long hours of duty of the student nurse. Fortunately hospitals throughout the country are practically unanimous in recognizing the justice and desirability of this change, and in most cases they are working toward this end with the hope of solving at least this problem during the coming year.

Changes should be made in our methods of training so that a three-year course of training shall be more distinctly educational and sufficiently broad in scope to pre-

*Read at the Eighteenth Annual Meeting of the New York State Nurses' Association, Brooklyn, Oct. 21-23, 1919.

pare nurses to enter the executive hospital field or the field of Public Health Nursing. We are doubtless all agreed that our student nurses should not find it necessary to spend more than three years in acquiring such training. Many of us are asking ourselves whether, in order to give a complete training and also to meet the argument so frequently advanced that nurses, like medical students, should all be trained along the same general lines, it might not be desirable to institute a two year and a three or four months' course of training along carefully arranged general lines; this course to be taken by every student entering the school, with the regular school diploma awarded at the end of the course, provision being made for immediate continuation of the work in a highly specialized postgraduate course of elective work covering an eight months' period for students desiring to prepare themselves for special work. Students intending to do private duty nursing might not desire to take this extra course; undoubtedly all others would.

Should this change be made we would not be doing what many of us are attempting to do today, when we give from three to six months' specialized work to every student in the school, regardless of her ability or fitness for such service or of her expectation or desire to ever make use of such special training. The work which is at present considered as special or elective and which is scattered at intervals through a three-year course of training might be grouped in this postgraduate course and the preliminary training required in Public Health or for preparation along executive or special lines, could thus be given.

It is a question whether hospitals might not really profit rather than lose by this apparent reduction of time, as it is a certainty that the more ambitious and desirable type of student would generally elect to continue the last eight months' work in order to secure the extra training and the postgraduate certificate which would carry considerable prestige with it.

We must face the fact that large numbers of the young women entering our schools today are doing so for the sole purpose of being prepared for Social Welfare or Public Health work and it is as unjust to deprive them of the opportunity of preparation for this work as it would be to deprive them of the opportunity of obstetrical or operating room training. The plan of establishing schools on this general basis also suggests the idea that hospitals with special facilities and equipment for elective postgraduate work of value might afford the opportunity of affiliation with smaller, carefully selected schools where such work is not possible. This would afford students from smaller schools the greatly needed opportunity of preparation for special elective work.

The idea of introducing a shortened period of training in addition to an eight hour day seems a startling one at first sight, but might not such changes help us to solve the problem of the shortage of applicants and, at the same time, make it possible to prepare a larger number of nurses for the needs of the public in a shorter period of time? It would certainly help us to maintain standards which promise to be utterly demolished if a general course of training of one year or less for nurses, attendants, or any other group becomes an established practice without adequate safeguards as to licensing or supervision of training. If the nursing profession does not boldly face the many complex nursing problems which today confront us and if we do not point out logical and satisfactory methods by which such problems may be solved, we may rest assured that others can and will undertake this piece of work for us.

Hospitals and training schools of the country, moreover, should spare no effort to endorse and participate in the work of publicity concerning nursing education, the necessity for which is being so strongly agitated through the national nursing organization. The simple statement made in a paper presented by Miss Carolyn E. Gray at the meeting of the National League of Nurses held in Chicago last June, to the effect that 15,000 students and possibly more are needed for annual enrollment in order to keep up the ranks of the training schools of the country, should be sufficient argument in this matter. Miss Gray's estimate is a most conservative one as it is a well known fact that not more than 60 or 65 per cent of all students enrolled for training complete the full course of three years. As the figure presented by Miss Gray of 15,000 students is based upon the number whom we expect to graduate annually from our training schools, her estimate is considerably too low.

Training schools throughout the entire country will undoubtedly be greatly benefited by the survey of all schools of nursing which has been recently undertaken by the American Nurses' Association and the American Red Cross for the purpose of standardization. This survey, if successful, should yield many interesting and significant facts and serve as a basis for many recommendations of greatly needed changes and improvements.

Increase Nursing Personnel

Our second problem is also of a most serious character. How shall hospitals be enabled to give adequate care to their sick patients and at the same time give to their student nurses a suitable and satisfactory nursing education and shorter hours?

The answer may be brief. First, by employing more graduate nurses on the permanent staff of the hospital, especially on the night force. Second, by the use of paid helpers or hospital maids, at least one of whom could be used to good advantage on every large hospital ward. Third, and I purposely place this suggestion last, by the use of graduate attendants who have been trained in institutions registered for that purpose and controlled by state law. Until legislation for the control and regulation of this group has been enacted, training schools and hospitals will find the use of attendants a dangerous procedure and one apt to work out more harm than good ultimately. Any attempt to train student nurses and attendants in the same institution must be regarded not only as undesirable but as apt to result in danger and disaster to the training school itself.

Organization of Training School

Problem three—who shall decide what plan of organization is best for the training school of today and how shall such changes be regulated and enforced?

The newly organized American Conference on Hospital Service which has come into existence during the past year affords an opportunity for the development of a comprehensive program for the nation, through the combined thought and effort of medical, lay, and nursing groups each of whom has hitherto considered the problem independently.

It is but natural that nurses in dealing with this problem should emphasize nursing standards, the details of nursing education, and the professional status of nurses. In considering nursing problems from these several points of view nurses have never felt that they were acting selfishly, but have believed that the control of nursing education and the protection of the rights of the nurse, both as undergraduate and as graduate, are of vital concern to the public.

The physician's point of view has been somewhat different. At the bedside the nurse is the physician's assistant and he is therefore interested primarily in obtaining an unlimited supply of faithful assistants ready to perform such tasks as may be assigned to them. With the demand for the services of nurses in fields apart from bedside nursing, physicians have not been particularly concerned. Taking what they evidently believed to be their patients' viewpoint, they have generally looked askance at any tendency toward the raising of nursing standards which was likely to be accompanied by an increase in the cost of nursing service. With but few exceptions physicians have concerned themselves but little with methods of teaching and have had little sympathy with legislation designed to protect the nurse as well as the public from imposition and fraud. The physician has evidently felt that he was fully qualified to protect his patients by the exercise of his personal judgment in the selection of nurses and bedside attendants; that legislative standards were superfluous; and that the activities of nursing organizations which have promoted protective legislation were more or less pernicious.

Hospital trustees have been torn between conflicting desires. They have felt it to be their duty to train large numbers of nurses in order to satisfy the public demand; and in seeking to enroll large numbers of probationers in the hospital schools they have undoubtedly been influenced also by the hospital's own nursing needs. Compelled by financial necessity, they have at times opposed what nurses have regarded as just demands for improvement in working conditions; and, without claiming to be expert in matters of nursing education, they have nevertheless demanded that they be recognized as the responsible managers of training schools.

Lack of Unity

And so, during the past decade, there have been two and sometimes three forces arrayed against each other in the struggle to readjust and improve nursing service in and out of hospitals. Opinions have clashed, but there has been no meeting of minds; the result has been confusion of thought and effectual interference with progress. Under these conditions, one looks forward eagerly to the effort, through the American Conference on Hospital Service, to debate the issue fairly and to develop a program which will come reasonably near to meeting all essential requirements.

In his public formulation of a program for the committee work of the conference at Cincinnati in September, the spokesman for the conference indicated what might reasonably be expected of a committee composed of nursing, professional, and lay elements, and publicly advised that in the deliberation of such a mixed committee, the representatives of the nursing profession be permitted to lead. I am advised that in the Executive Session of the Conference itself this view prevailed and that either the League of Nursing Education or the American Nurses' Association will be invited to assume the chairmanship of the committee which is to consider nursing matters on behalf of the conference, and which is expected to make its first report at Chicago, in March, 1920.

Might it not be wise to attempt to bring about the organization of similar mixed committees in each of the states? The appalling lack of unity of mind and purpose in New York state is surely a striking example of such a need. If the medical, nursing, and representative lay forces of the state could be prevailed upon to combine thought and effort and lay aside personal jealousies and petty differences of opinion, there is nothing in the line of progress and advancement which would not be comparatively easy of accomplishment.

How to Secure Sufficient Funds

Question number four—since the proper expansion of nursing education calls for greatly increased expenditures on the part of the hospital, how shall sufficient funds be secured for this purpose? I know that many people would say with great emphasis "by special endowments for training schools." One must say in regard to such a plan that wherever it can be accomplished it is ideal. Unfortunately at the present moment many schools could not secure immediate endowments at all adequate to their needs. Therefore, it would appear that the only logical way in which to meet the increased expense of both hospital and training school is by community or municipal support in the same manner in which our public schools are maintained.

Until very recently hospitals and training schools throughout the country have struggled alone with the responsibility of the education and training of the nurse. It has taken years of education and a great war to awaken us to the fact that the health and welfare of the nation depends largely upon the attitude of the general public concerning medical and nursing education and control. A recent writer on this subject has said "not even our public school system is of any more importance to the future welfare of the country than is the organized work of Public Health Nursing. From the cradle to the grave our people take no important step in which they do not at once feel the importance of this group. We cannot soberly contemplate the huge health problems of the war and their future readjustments without trembling at the risk we run in not preparing to meet such needs."

The general public today is demanding that training schools shall graduate efficient and properly trained nurses capable of performing their important work in the nursing care and health education of the community. I quote from an editorial which appeared in the *New York Evening Sun*, October 17, 1919: "One of the biggest jobs undertaken by anybody in New York is that of the health nurse. She attempts to teach our citizens 'how to get the best kind of living conditions out of the circumstances that surround them.' Could the wisest men in the world do more?"

Surely it is not unreasonable for us to expect that a community which requires service of so broad and valuable a character from its graduates nurses be also sufficiently intelligent to realize that progress and development in our schools of nursing can only be assured when adequate financial support is obtained and when schools of nursing are granted the recognition afforded other educational organizations. Then, and not until then, will the training schools be enabled to give a dignified and suitable preparation to the young women of superior intelligence and ability who will only enroll for such work when many of our present obsolete methods are eliminated and when nursing education becomes an actuality and not merely a name.

HEALTH INSURANCE COMMISSION REPORT

The report of the Health Insurance Commission of Pennsylvania as presented to the legislature in January of last year is now in print. Each senator and representative is allotted a limited number of copies and copies may be obtained by the secretary of each county society.

DISPENSARIES AND OUT-PATIENT DEPARTMENTS

Conducted by MICHAEL M. DAVIS, JR.
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NEW YORK DISPENSARIES

A Report Made by the Public Health Committee of the New York Committee of Medicine.

After a year's investigation and study, the Public Health Committee of the New York Academy of Medicine has issued a report of the dispensary situation in New York City. The magnitude of the dispensary field in New York City justified a thorough inquiry into the numerous medical, social, and economic problems involved, and the conclusions from this important study will be of great interest and value to all dispensary workers.

Three chapters of the study will be published in THE MODERN HOSPITAL because of their special interest to dispensary and hospital executives. They are entitled: "Organization, Administration, and Equipment of Dispensaries;" "Medical Organization," and "Book and Record Keeping."

The opening chapter, "Organization, Administration, and Equipment of Dispensaries," will be presented in two parts—Part I, immediately following, and Part II, in the March issue. Part II will include a discussion of "Existing Practice in the Management of Dispensaries, With Reference to: (4) Dispensary Hours; (5) Prevention of Over-Crowding and Long Waiting Periods; (6) Exclusion of Contagious Disease Cases; (7) Surgical Operations and Facilities for the Care of Patients."

OUTLINE OF ORGANIZATION, ADMINISTRATION, AND EQUIPMENT OF DISPENSARIES

1. *Policy and Management*:
   (*a*) *Existing practice with regard to responsibility for*:
      (1) *Policy of institutions.*
      (2) *Enforcement of policies.*
   (*b*) *Existing practice in the management of dispensaries with reference to*:
      (1) *Admission fees and other charges.*
      (2) *Assignment of patients to clinics.*
      (3) *Utilization of the dispensary plant.*
      (4) *Dispensary hours.*
      (5) *Prevention of over-crowding and long waiting periods.*
      (6) *Exclusion of contagious disease cases.*
      (7) *Surgical operations and facilities for the care of patients.*

ORGANIZATION, ADMINISTRATION AND EQUIPMENT OF DISPENSARIES

Part I

Section I—Policy and Management

In the study of organization and administration, the two fundamental inquiries relate to the responsibility, first, for the policy and supervision of the institution; and second, for the enforcement of the policy and supervision.

(*a*) *Existing Practice with Regard to Responsibility for*: (1) *Policy of Institutions.*—With regard to administrative supervision of dispensary work, boards have little in common, and hence there is considerable difficulty in classifying them. Two principal groups are, however, rather clearly defined: (a) boards of trustees, directors, managers or governors, the members of which are not engaged in the professional work of the dispensary; and (b) boards of trustees, directors, managers, or governors which include in their membership physicians who are also members of the medical or surgical board or staff.

The majority of dispensaries included in this study belong to the first group. Typical examples of such institutions are the New York Hospital Dispensary, the St. Luke's Hospital Dispensary, the Presbyterian Hospital Dispensary, and the dispensaries of the Bellevue and Allied Hospitals. Examples of the second group are the Post-Graduate Hospital Dispensary, the board of directors of which includes a large number of physicians, members of the medical staff of the institution; the New York Eye and Ear Infirmary Dispensary, the board of directors of which includes three representatives of the board of surgeons; and the Knapp Eye Clinic, the medical director of which is a member of the board of trustees.

Only in some of the institutions is the responsibility for supervision of the work of the dispensary vested in a body specially constituted for the purpose. In a majority of the institutions, reports of the dispensary work go through various channels, either the superintendent, the medical board, or the college faculty, if the dispensary is associated with a medical school.

In Mount Sinai Hospital and the Presbyterian Hospital, special committees on dispensary service of the general administrative boards supervise dispensary work and receive communications relating thereto from the medical staff. At the Demilt Dispensary there is a dispensary visiting committee of the administrative board, which changes monthly. At the Polhemus Clinic (Long Island College Hospital Dispensary) there is a special board of directors of the dispensary which is independent of the board of regents of the hospital and medical school with regard to its membership, but under the general direction of such board of regents.

In other dispensaries the administrative board is represented by an *executive committee* which is responsible

to the board for general, as well as for dispensary supervision, and deals directly *with the chief officers of the medical staff.*

In none of the dispensaries studied, however, was there found a general administrative organization providing for a dispensary committee which would be representative of all the various elements of dispensary organization—executive, administrative, medical, nursing, social service, and clinical.

Superintendent Has Executive Power

(2) *Enforcement of Policies.*—The directing or executive authority and responsibility for dispensary work in the hospital dispensary group is usually reposed in the superintendent of the hospital of which the dispensary is a part. The superintendent of the hospital is, however, ordinarily too much preoccupied with hospital duties to give much of his time to dispensary work and so he delegates part of his authority to some one else. Sometimes this is an assistant superintendent of the hospital, (Manhattan Maternity Hospital) sometimes a chief nurse (dispensaries of the Bellevue and Allied Hospitals group), sometimes physician-chiefs of clinic (Hospital for the Ruptured and Crippled), and sometimes the dispensary registrar (Polhemus Clinic).

In the dispensaries which are departments of medical schools, namely Cornell Dispensary and Vanderbilt Clinic, the lay business manager of the medical school is the responsible executive in the former, and the lay superintendent of Roosevelt Hospital in the latter.

In the dispensaries not affiliated with hospital or medical school, the executive may be a physician independent of routine clinic work (Demilt Dispensary) or regularly engaged in clinic work (Brooklyn City Dispensary and New York Clinic for Speech Defects) or a lay superintendent of dispensary (New York Dispensary).

Out-Patient Department Needs Executive

Just as there is a deficiency in the organization of the governing boards of many of the out-patient departments of hospitals with reference to the fixing of responsibility for supervision, so there is in many institutions an evident neglect to provide for the presence of a responsible executive at the out-patient department during the hours at which patients are admitted. The need of such an independent executive in a large out-patient department is apparent from observation of dispensary practice. Discourtesy to patients is by no means rare; controversies with patients are frequent and must be adjusted; delays of admission and treatment occur and hamper efficiency. These are matters which require the attention of an executive, not at long range from his office in a remote part of the building, but directly, in person, and immediately. When the dispensary is not in session, there are other important duties to be performed: to receive and examine the reports of various departments; to see that the dispensary is prepared for the next day's work; to check up the attendance at the dispensary and the reports of receipts, etc. An analysis of dispensary work at frequent intervals by the executive is necessary to prevent such work from becoming a deadly routine.

(*b*) *Existing Practice in the Management of Dispensaries with Reference to*: (1) *Admission Fees and Other Charges.*—Each dispensary of the group included in this study has seemingly adjusted its admission fees to meet its own peculiar needs and circumstances, with the exception of the Bellevue and Allied Hospital group, which, being public institutions, do not charge any fees. In the other dispensaries the widest possible variations are found. Six dispensaries require no registration fee, but charge for prescriptions, dressings, special treatment, etc. Three dispensaries require an initial registration fee—one of fifteen cents and two of twenty-five cents—and make no charge for subsequent admissions, but require fees for prescriptions, dressings, etc. One dispensary charges a registration fee of $1 and also makes special charges for treatment. One dispensary leaves it to the patient to fix his own fee at each visit by "dropping something in the box." Twelve dispensaries charge an admission fee of ten cents at each visit, and three ask twenty-five cents at each visit.

Reasons for Variation in Fees

The reasons for this great variation in fees are to be found in the needs and experiences of the individual institutions. The experience of one dispensary in adjusting its fees to meet the needs of the dispensary with regard to attendance and at the same time to conform to the purse of the patients, illustrates the situation. This dispensary, which is not affiliated with a hospital, but conducted as a department of a medical school, required no fees at the outset. As a result, dispensary attendance grew beyond the capacity of the institution. An admission fee of ten cents was then charged to cut down attendance, but failed to have the desired result. The next step was to add special fees for dressings and prescriptions, bringing the total cost to the patient up to approximately twenty-five cents. This resulted in too great a loss of patronage, so the admission fee was eliminated entirely, and fees for prescriptions, dressings, and special treatment only were required, making the average cost to each patient about fifteen or twenty cents. This reduction of charges resulted in increasing the attendance to the desired point.

It would appear that the minimum fee for so-called "free" dispensary service, except in dispensaries furnishing a highly specialized service, such as the Neurological Institute which requires a registration fee of $1, and a fee of twenty-five cents for subsequent special treatment, should be twenty-five cents for each admission. The maximum might perhaps be as high as fifty cents. A fee of twenty-five cents is required for each admission to the Brooklyn Hospital Dispensary, and little difficulty is experienced in collecting it. A fee of twenty-five to fifty cents for each admission should ensure for the patient, however, adequate facilities for diagnosis and treatment. The dispensary which is poorly equipped and otherwise unprepared to render service of high quality could not keep its patronage against the competition of other, better equipped dispensaries if such fees were charged, and this would hasten the elimination of unfit dispensaries or compel them to raise their standards.

Fees Should Be Standardized

The adoption of standards of equipment and service as worked out by the Associated Out-Patient Clinics should, however, result in standardization of fees in those institutions where standards of service are maintained. Provided the patient obtains satisfactory service, a minimum fee of twenty-five cents for each admission is not excessive. The cost of dispensary service has increased materially, and will no doubt steadily increase, to meet the generally higher cost of supplies and equipment and the demands of dispensary workers for better compensation. The falling off of dispensary attendance during the period of our participation in the war, noted in the majority of dispensaries included in this study, is attrib-

uted by many dispensary executives chiefly to the fact that there was less unemployment, owing to the necessities of war work. Former patients, foregoing dispensary treatment because of lack of time, employed private physicians as being more convenient. The generally higher level of wages which will probably be maintained warrants "free" dispensaries charging fees more nearly commensurate with the service rendered.

That there should be a fee goes without saying; that an initial registration fee of ten or fifteen cents, which carries with it the privilege of a year's dispensary treatment, is inadequate, may fairly be maintained; that a fee of twenty-five cents in dispensaries giving satisfactory service is not too high for a large percentage of patients and can be collected, has been demonstrated. It would be far better to charge, as the Brooklyn Hospital does, a fee of twenty-five cents for each admission, than to charge a low fee for admission and then attempt to raise the total charges to the patient by adding special prescription, dressing and treatment fees, as is done in many dispensaries. Provision should be made to remit the fee when the patient's economic condition calls for it.

The fees for prescriptions, dressings, and treatments vary widely. In some dispensaries a fee of five cents is charged if the prescription requires a bottle; in others, the charge for prescriptions is based on the cost of preparation. Treatment fees vary from ten to fifteen cents for surgical dressings to $2.50 or more for salvarsan. Special charges are also made for operation, administration of anesthetic, and x-ray examination, varying from fifteen cents to $3. There are no standards, and each institution bases its charges on what experience has shown to be advisable.

Charges Could Be Standardized

Charges for salvarsan, prescriptions, and the like could no doubt be standardized in those institutions having comparable standards of service. Prescriptions should be based upon cost, and this naturally will vary somewhat with each institution because of the variation in prescriptions as written by physicians, but each institution dispensing medicine should do so on the formulary basis because of the greater economy resulting in the purchase and preparation of drugs, an economy to the dispensary which may be made an economy to the patient, also. In the larger hospital dispensaries this is the prevailing practice, but as the formularies vary somewhat, there is corresponding variation in costs; but even in the preparation of dispensary formularies, it would be well to approach great uniformity in prescription writing and therefore greater uniformity in costs. Certain prescriptions for tonics, cough mixtures, laxatives, sedatives, or diuretics, which are standard, cheap, and in common use, could well be incorporated in a standard formulary for general dispensary use. The use of such a standard formulary would permit a number of dispensaries to club together in purchases of drugs and thereby obtain a better price; the use of stock preparations put up in convenient packages would save considerable time in dispensing drugs and in some dispensaries would permit a reduction of salary cost in the drug room; the use of printed prescription slips for the various standard preparations would save time for the physicians and simplify matters also for the pharmacists. All this saving could be passed along to the patient. The establishment of uniform fees would be easy for other charges, such as the administration of anesthesia, salvarsan, serums, or Wassermann tests.

There is a growing conviction in the minds of the majority of dispensary administrators that patients should pay more for dispensary service; that the time has come to place the responsibility upon the patient of meeting his medical needs. Provision against sickness should be as much a part of the individual's budget as provision for clothing, shoes, and other material needs.

(2) *Assignment of Patients to Clinics.*—Discussion of the clinic organization of dispensary service leads naturally to comment on existing practice of assignment of patients to clinics. Present practice in the dispensaries included in this study is based upon a preliminary selection and assignment of patients to the various clinics by the registration clerk, who makes inquiry as to the nature of the patient's illness and notes the apparent signs pointing to such illness. In only two of the dispensaries studied is the preliminary assignment made by a physician (Demilt and Brooklyn City Dispensaries) although in some of the others the long experience of the registrar in making "snap" diagnoses has made his work acceptable. In many dispensaries, however, the inadequate experience and lack of proper training of the lay registrar multiply the difficulties of prompt and efficient handling of patients. A patient incorrectly assigned to a clinic must later be transferred to another clinic. The time of physicians and others is wasted in getting this particular patient properly started on his dispensary career, and in a large dispensary handling several hundred patients daily this means considerable loss of time and waste of motion.

Trained Physician as Registrar

The appointment of a well trained physician as registrar with adequate salary, theoretically should be effective in reducing to a minimum errors in assignment of patients to clinics; but it is difficult to secure a trained physician, even at a high salary, who would be willing to perform such routine service. The appointment of a young physician or intern to this position is also unsatisfactory because he has not had adequate experience in handling patients and is himself likely to fall into the rut of routine perfunctory "snap" diagnosis. It is obviously impossible to give the patient a satisfactory preliminary examination at the admission desk.

It is believed that a more satisfactory procedure would be to admit all *bona fide* patients except those whose disease or injury is apparent and readily classifiable, to a general medical clinic for complete preliminary examination and diagnosis before final assignment. The patient with a cough, who might under the present system be assigned to a throat clinic, a cardiac clinic, or a tuberculosis clinic on the "snap" determination of the registrar, could there be thoroughly examined and properly assigned, thus saving many transfers, perhaps, and loss of time to both physician and patient. Such a plan would require the services of a corps of medical examiners of skill and experience for the examination of new patients, which, with the proper organization of the medical service, could be easily recruited, especially if all of the clinic physicians could have a chance in rotation to serve in the diagnostic admission clinic.

(3) *Utilization of the Dispensary Plant.*—In appraising physical conditions in dispensaries, it is necessary to recognize at the outset that the hospital dispensaries have in many instances resulted from after-thought, rather than fore-thought. The hospitals naturally came first, and when it became apparent that the dispensaries were an essential feature of good hosptial service, they were

established in the hospital plant wherever space could be found. The result has been too often that dispensaries which may in the beginning have been adequate in physical plant are now greatly handicapped by lack of space; dispensary needs and hospital needs have grown so rapidly that, in many instances, hospital plants can no longer house their dispensaries properly. It may be said of the institutions included in this study that, with but few exceptions, the dispensary plants are physically inadequate except where special dispensary buildings have been constructed, or the original plants extended.

Growth of Dispensary Services

The hospitals of the Bellevue and Allied group, with the exception of Gouverneur, where a new separate dispensary building has been built recently, afford excellent illustrations of the growth of dispensary services beyond the physical capacity of their original quarters. At Bellevue Hospital the dispensary occupies a two-story building which, although perhaps originally sufficient for the purpose, has been long since outgrown. At Harlem, it has been well-nigh impossible for the adjustment and readjustment of dispensary quarters to keep pace with the constantly growing population of the vicinity and the consequent evergrowing service of the institution. As a result, at this institution there is a congestion of patients and doctors, and a cramping of space, which make efficient and satisfactory work difficult. At Fordham Hospital the dispensary is in the basement, which is not well adapted to the dispensary service because of the lack of clinic room space in proper proportion to waiting room space. The needs of the Fordham Hospital district have already far outgrown the capacity of the hospital and dispensary.

At the New York Hospital, Roosevelt, Lincoln, Post-Graduate, the Demilt Dispensary, and the Neurological Institute, also, the demands for dispensary service have grown beyond the capacity of present quarters. Lack of adequate waiting room space at the Neurological Institute makes it necessary for patients to wait in long lines in the street. Poorly lighted and poorly arranged quarters in the basement of Roosevelt Hospital make efficient dispensary service well-nigh impossible; at the Demilt Dispensary, also, basement rooms are used which require artificial lighting at all times, and are generally unsatisfactory in arrangement; at the Lincoln Hospital, the hospital basement is also used for dispensary work, and the work is considerably hampered, both because of inadequate waiting room space and inadequate clinic room space; at New York Hospital, the demand for large waiting room space has made it necessary to economize the clinic room space, with resulting inconvenience to physicians.

Space Not Utilized

On the other hand, in many of the newer and better arranged dispensaries, there is an ample provision of clinic and waiting room space, which is not utilized to full capacity. This is particularly true at Gouverneur Dispensary, where, as stated above, an excellent three-story dispensary building has been built recently. At this dispensary, the first floor includes the admitting office, waiting room, and medical clinics, including clinic for children; the second floor is the surgical floor, and the third floor the tuberculosis floor, with space also for dental clinic and eye clinics. But general medical and pediatric clinics are held only in the morning, from ten to twelve, and general surgery from two to four p. m.; for a large part of the day, this fine dispensary plant stands idle.

At the Lebanon Hospital dispensary a very well arranged dispensary building has been recently built, but the building is not adequately utilized, because clinics are held only from two to four p. m., except the pre-natal clinic on Wednesdays and Fridays from ten to twelve a. m. At the dispensary of the Hospital for the Ruptured and Crippled there is a very ample provision of clinic and waiting room space, which is, however, only utilized from one to three p. m. daily. At the New York Eye and Ear Infirmary and the Manhattan Eye, Ear, Nose, and Throat Hospital, where there are very satisfactory clinic arrangements and equipment, clinics are held only in the afternoon from one to three.

From even such limited study as the present one, it is apparent that New York City needs rather wider utilization of the dispensary plants which it now has than new dispensaries. It is true that the lack of wider use of the dispensary plant is dependent in large measure upon the difficulty of arranging convenient hours for an almost universally unpaid medical service. Whether or not this difficulty would be solved completely by the payment of salaries to physicians, or by the establishment of night pay clinics, remains to be seen. It seems reasonable to suppose that some, at least, of the difficulties would be solved by these measures. Certainly efficiency and economy of expenditure of public money for the Bellevue and Allied Hospitals warrants, not only more adequate provision for dispensaries in Bellevue, Harlem, and Fordham, but also a much wider utilization of the excellent dispensary plant at Gouverneur.

Summary of Physical Defects

Without further consideration of the relation of dispensary hours to the proper utilization of the dispensary plants, a brief summary of the more evident physical defects in dispensary plants will perhaps be helpful in suggesting practical remedies:

(i) Inadequately lighted, usually artificially lighted, clinic rooms. This defect is particularly noticeable in dispensaries occupying basements of hospital buildings.

(ii) The small size of clinic rooms made necessary by the provision of large numbers of special clinics.

(iii) The lack, because of restricted clinic space, of provision of booths or cubicles for dressing and undressing patients.

(iv) The lack of proper grouping of clinic rooms so as to make easy reference and consultation between clinics having associated interests.

(v) The lack of proper waiting room space before clinic rooms, so that distribution of patients may be made quickly from the general waiting room.

(vi) Bad distribution of space, as, for example, devoting a large part of the main, well lighted dispensary floor to the drug department instead of to clinic rooms.

(vii) Lack of proper quarters for social workers in immediate vicinity of the patients' waiting room.

Waiting Room Space Desirable

Apart from a better arrangement of clinic hours which will reduce the number of patients coming to the dispensary at any one time, much can be done to remedy the defects mentioned, even without any increase of the size of existing dispensary plants. If the dispensary is not adequately lighted by day light, the artificial lighting should be the very best possible. Fixtures should be arranged properly so as to give maximum illumination when the physician wants it. The size of the electric light bulb used is worth considering, and in certain instances the use of the "daylight" incandescent lights may be found helpful.

Even though the clinic rooms are small and their size cannot be increased, the number of patients received certainly can be limited to suit facilities, and the number of special clinics can in many instances be reduced so that the most essential ones can have proper working space. Once the decision is made as to what clinics are really essential, clinic rooms can be grouped according to their proper associative relations. Reduction in the number of special clinics and their regrouping would help considerably at the Harlem Hospital Dispensary, for example.

Such reduction in the number of clinics and their regrouping according to their association of interests would perhaps permit also more adequate facilities for the preparation of patients. Collapsible screens or curtained booths could be provided, which could be taken down and put away when not in use.

Ample waiting room space outside the clinic rooms and apart from the general waiting room space is particularly desirable in large dispensaries as it expedites distribution of patients and segregates patients for a social service interview. Even though there is not adequate space outside of clinic rooms, the general waiting room can be divided into sections, as conveniently located to the clinic room as possible, and this helps considerably. This is done, for example, at the Manhattan Eye, Ear, Nose, and Throat Hospital, and the clinic physician, by looking over his patients, can determine how he will adjust his own time to meet the dispensary schedule.

The distribution of space to the various features of dispensary work is also an important consideration, but one to which sufficient attention has not been given in most of the institutions. The essential thing is, of course, to have proper facilities for the examination and treatment of patients, and yet in certain institutions the most desirable space has been given to other less important features of the dispensary. For example, at the Demilt Dispensary the drug room occupies space on the well lighted main floor of the dispensary to the exclusion of clinic rooms, several of which are in the basement. It goes without saying that accommodations as adequate as possible should be provided for the drug room, the x-ray room, and the laboratory, but where space is at a premium, clinic rooms should receive first consideration.

It would be a difficult matter in many hospital dispensaries to provide extra clinic space, particularly in the summer months, by the erection of temporary tent quarters for clinics on the hospital grounds. This has in fact been done at Fordham Hospital for the pre-natal clinic.

Location of Social Service Worker

In many instances the location of the social service headquarters far away from the waiting room of the clinic results in the social workers themselves being somewhat detached from the routine of the dispensary. But even where space for the social service worker is not readily available, provision can certainly be made for a table and a few chairs in close proximity to the waiting room, so that the social worker can obtain that direct contact and intimate relation to the dispensary concerns which she should have.

Without attempting to enter into a detailed discussion of dispensary arrangement and equipment, it may perhaps be helpful to point out excellencies of construction and arrangement illustrated in certain of the dispensaries studied.

One of the most complete dispensary plants, all things considered, seen in this study is that at Mount Sinai Hospital. This dispensary occupies five floors and is connected by underground passageway with a special building of children's clinics. Effort has been made in grouping clinics to have frequently associated clinics work on the same floor. Clinic rooms are all ample in size and naturally lighted. There is large waiting room space on each floor, so that patients are quickly distributed from the main waiting room on the ground floor. Working conditions for physicians are satisfactory throughout. Similarly, at the new Gouverneur Hospital Dispensary, three floors are devoted to dispensary work, and associated clinics are grouped on the various floors.

The dispensaries of the Hospital for the Ruptured and Crippled, the New York Orthopedic Hospital, and the Manhattan Eye, Ear, Nose, and Throat Hospital are examples of the one-floor dispensary type. The buildings are of comparatively recent construction and were planned expressly for the special work done in them. The New York Orthopedic Hospital Dispensary has a rather unique arrangement of clinic rooms. Instead of the conventional arrangement of central waiting room with clinic rooms at the side, the waiting room, with the registrar's office, is not directly connected with the clinic rooms, the latter being grouped about a central rotunda. Clinics for males are on one side and for females on the other side, with a secretary's office between, in the center of the rotunda.

Patients Seated Near Clinics

The New York Dispensary, which is also of modern type of construction, is essentially a one-floor dispensary, although a second floor is utilized for the financial affairs, dental clinic, and woman's genito-urinary clinic. The large general waiting room on the main floor is so divided into sections that patients destined for special clinics are segregated and seated near such clinics.

The Brooklyn Hospital Dispensary, which is also of recent construction, comprises two principal clinic floors and a basement which is utilized for massage and exercise of orthopedic patients. The arrangement of clinic rooms is conventional, but here also clinic rooms have been grouped according to their association of interests. Clinic rooms are all ample in size, well lighted and ventilated, and arranged with an eye to the convenience of physicians. A special feature here is the arrangement of the genito-urinary clinic *en suite* with an entrance directly from the street, as well as from the main dispensary floor. This makes easy the utilization of this part of the dispensary for evening clinics.

Special Arrangements Facilitate Registration

The Post-Graduate Hospital Dispensary, though considerably handicapped for space, by reason of the extension of special clinic services made necessary by the postgraduate instruction program, has several excellent features of arrangement which contribute in no small degree to its efficiency. The general waiting room at the entrance is small, but patients are registered rapidly and assigned to clinics, so that a large waiting room is not essential.

Each clinic has its own special waiting space in the corridors before the clinics, and clinics are so grouped on the various floors that reference from one clinic to another and consultation are readily arranged. The drug room is near the exit, which is at the opposite end of the building from the entrance, and this helps to relieve congestion to a marked degree. Patients come into the dispensary, are segregated and distributed, treated and prescribed for, and go out in orderly fashion at the opposite end of the building.

At the Polhemus Clinic (Long Island College Hospital Dispensary) an especially noteworthy feature is the equipment of clinic waiting rooms with booths in which patients may dress and undress. The results of this innovation upon the attitude of the patient, and upon the efficiency with which routine work is done, more than justify the utilization of clinic room space for this purpose.

From the illustrations here given it is possible to draw certain general conclusions regarding the most efficient arrangement of dispensary plants.

(i) The general waiting room space need not be large if patients are expeditiously registered, segregated, and assigned to clinics, but there should be ample waiting room space at the entrance to each clinic, or at least the general waiting room should be so divided into sections as to segregate patients destined for clinics conveniently adjacent to them.

(ii) The dispensary should be so arranged that patients do not come in and go out at the same entrance, in order to avoid confusion and congestion and the last need of the patient, i.e., the prescription, should be provided at a drug room located near the exit.

(iii) Clinics should be grouped on floors or in sections according to their special association. For example, genito-urinary disease clinics, gynecological clinics, and skin clinics should be closely connected; the nose and throat clinic and the ear clinic, which are so closely related in function, should be closely connected physically; clinics for general medicine, and for such specialties as tuberculosis and gastro-intestinal disease should be grouped, and so on. The exact grouping would, of course, need to be determined according to each dispensary's needs.

(iv) If a general dispensary laboratory is provided, such laboratory should be located, if possible, on the main clinic floor, rather than at the top of the building, as is usually the case. Easy access to the laboratory from clinic rooms would, perhaps, aid materially in increasing the use made of it. Since the laboratory is used more by certain types of clinics than by others, it should be as conveniently located to such clinics as possible.

(v) Looking toward the development of evening clinics for genito-urinary diseases, separate entrance to the genito-urinary clinic room or rooms should be provided, so that the general dispensary quarters may be closed if desired during the evening.

(vi) The social service department should be near the entrance and general waiting room, rather than on the upper floors of the dispensary or in a remote part of the building, in order that the contact of the social service department with the patient may be from the beginning rather than at the end.

(vii) No more clinic rooms should be provided than the dispensary space can furnish properly. It would be far better to have a few special clinics, with ample working room for each, than to have a larger number of clinic rooms, with inadequate working space.

(viii) Clinic rooms or suites should be large enough to permit their equipment with individual dressing rooms or booths, so that several patients may be admitted and prepared for examination at one time, not only to expedite the physicians' work, but also to give patients a certain degree of privacy which they ought to have.

At the Dispensary

A boy telephoned to a dispensary the other day and said, "Say, Missus, when can a feller come to the dispensary to have his stomach looked at?" The only way the nurse had of distinguishing between stomach and abdominal cases was to ask whether it was the *upper* or *lower* stomach. So she asked him and heard him call the length of the room, "Hey, Bill, she wants to know whether it is your upper or lower stomach."

HARVARD ENGINEER IN BUREAU OF HYGIENE

Professor George C. Whipple, of Harvard University, has been appointed director of the Division of Sanitation, in the Bureau of Hygiene, of the League of Red Cross Societies. He will at once take up the task of organizing this new and important work, which is designed to become a sort of international health department and general clearing house for the exchange of information on public health activities in all parts of the world. Professor Whipple will continue until February in his work at Harvard, where he is secretary of the School of Public Health and professor of sanitary engineering.

Professor Whipple is widely known as an authority on water supply. His work has carried him to various parts of the United States, and as deputy commissioner of the American Red Cross Mission to Siberia, brought him into contact with the sanitary needs of many countries.

SERBS USE AMERICAN HOSPITALS AS MODELS

The American Red Cross hospitals in Podgoritza and Kolachin are to be used as models for all Serbian military hospitals throughout Montenegro and Dalmatia. After a trip of inspection of these hospitals, Major Bozidor Jankovitz, surgeon general for those divisions of the Serb army, issued an order to that effect.

The Red Cross doctors and nurses who planned, furnished, and operated these hospitals considered them the most pitiful makeshifts. They have been obliged to use Austrian iron cots without springs for the patients, and hand-made wooden tables, dressing stands, and medicine closets. For dippers they have condensed milk cans, and for boilers and water buckets, old gasoline cans. They have made their stoves themselves of cement and iron. Instruments are few, dressings are sterilized and used over and over again, and what few rubber gloves they have are patched and repatched over and over again, with tire cement.

Nevertheless, it is these makeshifts which the Serbs desire to copy. "It is no use for us to go to Paris or New York to see hospitals," said Major Jankovitz, in the course of a conversation with Miss Lena Johnson, head nurse of the hospital. "We cannot copy these wonderful hospitals, for Serbia. We have neither the fittings nor the money to get them. But you have been an education for us. You come here, as we do, with only a few supplies. You create out of packing boxes and petrol tins and the work of your own hands, hospitals that are immaculately clean, that give sunshine and air and good food as well as skilled attention to your patients. It is no wonder that ours die and yours get well.

"But," he added, "now that we have seen how it can be done, you shall not find us backward pupils. I wish to have all your appliances—your tables, chairs, mattresses, especially your operating rooms, copied exactly. I shall order that the Serbian military hospitals follow the example of the Americans. If we can do what you are doing here, it will be the greatest thing you have brought to Montenegro."

Dietetics and Institutional Food Service

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DETECTING HOSPITAL FOOD WASTE

By ERNEST E. IRONS, M.D., Chicago, Ill.

Hospitals are now experiencing great difficulties in balancing expense with income, and are endeavoring to meet the situation by increase of charges, closer buying, and by curtailment of expense by installation of improved systems. But there is one source of saving that seems to have been neglected. The garbage can has received some attention, but the possibilities in this direction have been for the most part overlooked. Any hospital superintendent would be delighted with an additional endowment of $100,000, and would be willing even to erect a tablet to the memory of the donor. And yet in many of the larger hospitals an amount much larger than the income from such an endowment is being needlessly thrown out in garbage each year, a waste that may be eliminated to a large extent. While it is true that the nature of the hospital problem makes a certain degree of waste inevitable, the enormous waste which is easily demonstrated even in well managed hospitals, seems entirely unnecessary. Much was accomplished both in private homes and in institutions in the saving of food during the war, but two years is too short a time in which to break a national bad habit, and in spite of rising prices, we are slipping back rather than going forward. Apart from the question of dollars, which makes the strongest appeal to many of us, including hospital superintendents, there are two other reasons for the avoidance of food waste. Even in this country, rich in resources, and able to produce more than is necessary for the feeding of its people, there are today many who have not enough to eat, and every pound of waste places an adequate supply of food farther from their reach. The question of labor is also involved, for as food passes from field to storehouse, it represents an increasing amount of expended labor, and looked at from this standpoint it would be cheaper to throw wheat away than to waste an equivalent amount of flour and better to throw flour into the garbage can than to waste it in the form of bread. Yet it is so easy to throw out slices of bread.

Why Waste Occurs

It is of interest to note some of the general facts about waste. Waste of food does not usually result from deliberate intent to destroy, but occurs rather because of failure to recognize waste, and because the system of handling food takes too little account of the needs, feelings, and impulses of the ultimate consumer—the patient or employee. A superficial survey in the hospital may have seemed to indicate that the correction of evident food waste would entail an expenditure of thought or labor not justified by the saving attainable. More often, the waste has been viewed only from the garbage platform, and from this viewpoint, it usually seems unavoidable, and the situation hopeless.

Very few hospital superintendents know the amount and character of the garbage which leaves the hospital daily, or the cost of this garbage when bought as food. The making of a satisfactory arrangement whereby the garbage is taken away at no expense to the hospital is often regarded as a triumph. If the volume of garbage is large enough and local conditions favorable so that it can be sold for a small amount to a reduction plant, or for the feeding of hogs, the very fact that the garbage yields a revenue serves as an excuse for overflowing cans, and it is not realized that what is sold for a few cents represents a direct cost of ten or more times this amount when bought as food a few days before. Most of the larger hospitals have fairly well developed methods of buying, and costs of food are carefully computed, but very few hospitals have available figures to show the percentage of the original cost of food that is ultimately carried away as garbage.

Any hospital superintendent may spend a morning profitably in an inspection of the garbage cans, their surroundings, cleanliness, number, weight, and contents. The profit of his morning will be increased if he becomes curious as to just where the articles he finds came from, whether from the general kitchen, the dining rooms, or the wards. If he investigates further, he will find that the amount of table waste is not the same from all wards, even though they contain the same numbers of patients; that the dining rooms yield different amounts of table waste quite out of proportion to the number of meals served; that the relative amounts of table waste vary with menus, even though the daily cost sheet shows no corresponding fluctuation.

Successful Distribution of Food

Some of the factors which contribute to the successful distribution of food are the following: careful purchase of good qualities of food, adequate storage, careful preparation and good cooking, intelligent planning of menus by the dietitians, thoughtful prescribing of dietaries by attending physicians; an adequate system of service whereby food arrives at the bedside of the patient in an appetizing state—hot foods not cool, and cold foods not warm—neat and attractive service on trays, and a sympathetic and intelligent supervision of the food of each patient by the nurses in charge of the wards.

To attempt to solve the problem of the garbage can without considering all these and similar factors is to waste effort, and to fail to reach the goal. The separation and weighing of waste food gives valuable data. The

problem is therefore an extensive one, and calls for the development of an institutional *esprit de corps*.

It may be safely stated that the hospital is rare indeed in which the personnel concerned in each of the stages of the distribution process, are conscious of the full responsibility devolving upon them. Granting that in most respects the preparation of food is fairly well performed, a hospital may still suffer serious and unnecessary loss through neglect of two elements of the problems. These are the ultimate consumer (the patient), and the character and amount of waste which he causes.

Personal Interest of the Nurse

As more patients are treated in wards than in private rooms, we may profitably consider for a moment what happens to John Smith who has a broken leg. His appetite, formerly good, has recently failed by reason of long confinement in bed, and seems to leave him at sight of the amount of food piled up on his tray. It is often cold. He does not like carrots, but regularly the carrots come, and as regularly are sent out to be thrown away. He eats little bread, but as all trays receive a whole slice of bread at least a half slice on his tray is thrown away. The maid brings in the trays at 11:45 a. m., and removes them at 12:15 p. m., and the nurse in charge of the ward assures herself that the schedule of soft, light, and full trays posted in the kitchen has been followed; otherwise there has been no supervision of the meals. The other patients have the same sort of unrecognized troubles as Smith, except that their likes and dislikes are perhaps different.

In the surgical ward across the corridor Jones also has a broken leg. The nurse in charge is better acquainted with her patients and is usually able to arrange a substitute for what Jones does not like or at least sees that he does not receive things she knows he will not eat. She seems never to hurry, but always happens to be around in the diet kitchen or the ward when things start to go wrong, and she seems to have very little trouble. Her garbage can usually contains less than half as much as that of the neighboring ward.

The difference between these two wards lies in the personal interest the nurse takes in her patients, her study of their likes and dislikes. The patients appreciate this personal touch, and immediately respond by cooperating in many little, helpful ways, and if they were asked to help further in avoiding waste, would join gladly in an effort to make the ward the most thrifty in the hospital.

System is absolutely necessary in the feeding of patients, but there are two kinds of system, that with a soul and that without a soul. Whenever patients are treated as so many cases, instead of as individuals, each with his own peculiarities, the ward becomes a machine, without the good attributes of automatic machinery. Personal interest in patients pays dividends not only in saving of waste, but in preventing errors and lapses and in maintaining a spirit of cordial cooperation between hospital and patient.

It is evident that to be ultimately successful and therefore worth while, efforts planned to decrease waste (whether of food, gauze, surgical supplies, electric light, or gas) must be not spasmodic, nor initiated after the manner of a crusade, but rather directed at fundamental principles which underlie the processes of preparation and distribution of a commodity, from the time it enters the institution until it has been utilized.

The amount of waste which is unavoidable, under given conditions will no doubt vary with the character of the hospital, and therefore dogmatic statements and unqualified comparisons are undesirable. It is also possible to so overestimate the importance of methods for preventing waste, that the time and labor expended on them constitute so great a charge as to overbalance the saving accomplished, and thus inadvertently to substitute a new source of waste for the old one.

It is proposed to attempt to point out some of the reasons why food waste occurs, and how it can be to some extent controlled, by referring first to methods employed in an army hospital, and then by applying the same principles to civilian hospitals. The difference between the two types of hospitals is less than is generally supposed. The element of discipline, which is sometimes thought to be an asset in the army hospital forever out of reach of the civilian institution, is much misunderstood. The essence of discipline is prompt and willing compliance with instructions, and to obtain it the commander must have the active cooperation of his command. When he has this cooperation, everyone is so busy doing his part that no one thinks of discipline. This constitutes a happy command. With a well thought out plan, adequate supervision, and continuous study of human nature, there is no reason why the same cooperation cannot be obtained in the civil hospital.

Savings Attained in an Army Hospital

The Food Division of the Surgeon General's Office, in a survey of camps in 1918, found an average food waste of .38 pounds edible and .9 pounds total waste per ration for 437 messes in army camps. It is, of course, obvious that local conditions, lack of kitchen facilities, and trained organization, led in some camps to high waste which was later corrected. In other camps where conditions had been more favorable, the waste was much lower. In army camps, separation of garbage into several classes was insisted upon by the Reclamation Service, chiefly for the purpose of facilitating disposal. Thus separate cans were supplied to each mess for the reception of (1) edible food (i. e., food which could be fed to animals); (2) nonedible garbage (such as lemon rinds, coffee grounds, egg shells); (3) bones and fats (yielding grease); (4) tin cans; (5) sweepings. Advantage was taken of this compulsory separation of garbage, to obtain, by carrying the separation a step further, figures on the amounts of garbage which were yielded under varying conditions in the base hospital, and by further separating garbage classed under (1) edible food, into (a) table waste, and (b) unavoidable kitchen waste, derived from preparation of food such as potato and other vegetable parings, to get a basis of comparison of waste from day to day.

This separation of table waste from kitchen waste and from inedible garbage such as fruit rinds was obviously necessary if the avoidable wastes of any two periods were to be compared. Without the separation of inedible rinds from table waste, the addition of water melon for instance to a day's menu, would result in a vitiation of the figures of avoidable waste for that day.

At the base hospital, Camp Custer, the cooperation of enlisted personnel, nurses, and officers had been such that waste of food had always been far below the averages given above. By urging the necessity of conserving food, and by a general supervision of messes, the average waste per ration (per person per day) derived from edible food, was reduced to between 1.50 ounces and 2.0 ounces. Thus the daily hospital average for all messes for the week ending July 28, 1918, was 1.85 ounces. At this point the inspection and weighing of table waste from

each ward and each mess was instituted, and the edible waste fell progressively. For the week ending August 4, the average was 1.25 ounces; August 11, 1.22 ounces; September 7, 0.30 ounces; September 28, 0.15 ounces. For the months of September and October, including the first portion of the influenza epidemic, with its attendant strain on the personnel, the average waste for 134, 730 rations was 0.26 ounces. In a civil hospital of 400 beds, feeding in addition a personnel of 300, an equivalent amount of waste would give 11 pounds of edible food as garbage daily.

The saving thus made possible by detailed inspection may be expressed more clearly if reduced to money values. The difference between the average of 0.26 ounces and the average waste of 1.85 ounces which itself was a low figure compared to that found by the food division, was approximately 1.5 ounces. When this apparently insignificant saving is multiplied by the number of rations served, it is found that 12,000 pounds of edible food were saved in two months at a time when the conservation of food, independent of its money value, was of vital importance. Careful studies of costs of food made at this time showed that at the quartermaster prices the cost of food as served was approximately ten cents per pound. The money value of the saving was therefore $1,200. Computed on the basis of average waste of edible food in 437 messes, this saving would amount to 49,000 pounds which, at ten cents per pound, would cost $4,900. As it was not desired to accumulate a large mess fund, but rather to improve the quality of food which could be served for the ration allowance ($0.50 to $0.60 per day), the saving thus effected was used for the purchase of additional articles of food such as fresh fruit and vegetables. Avoidance of waste in this way became a matter of personal interest to everyone, because it meant more and better food. Under these conditions any sudden rise in edible waste usually indicated a defect in the quality of food bought, or a fault in its preparation, which could be immediately detected and corrected.

The essentials of the system which made this saving possible were:

1. Provision of a clean garbage station convenient to the kitchen.
2. Separation of garbage at its source, in each mess and ward.
3. Collection of garbage from each unit, and the recording of character and amount by actual weight, by an intelligent man who was interested in his work.
4. Daily report of the garbage return, showing amount and kind coming from each unit.
5. Inspection by chief nurse, dietitian, and other department heads, to determine and remedy the causes of waste shown by reports.
6. Active cooperation by all of the personnel.

Weighing of Food Necessary

It is important to note that in spite of a well organized kitchen and distributing service, and continued cooperation on the part of the personnel it was not possible to reduce the table waste below 1.85 ounces per person per day, without the weighing and reporting of garbage. The combined waste of edible food in the hospital fell to an incredibly low figure immediately upon the institution of daily inspection and weighing of garbage from each unit, as this fixed responsibility, and introduced the element of friendly competition.

Food waste in the civil hospital will go on until an adequate system of garbage control is instituted. The installation of such a system is not difficult, nor does it require any complex apparatus. It should provide for the separation of table waste from other ward waste in cans provided for each ward or administrative unit. Simple instructions to nurses and maids will ensure this primary separation, which makes subsequent sorting at the central garbage collecting point unnecessary. These cans are collected daily or oftener if necessary, and their contents weighed. This work should be supervised by a man who is chosen not because he is unsuited for any other work, but because he will take an interest in his job, and will render accurate reports. These reports should reach the superintendent daily, and inform him of the amount of garbage produced by each unit of the hospital. By inserting in the report the number of patients in each unit, the *per capita* waste is reckoned for each day. The distribution of copies of the daily report to the dietitian, the superintendent of nurses, head nurses of units, and the chef, will help to keep the subject of saving before them, and will quickly stimulate competition among ward units.

Attention may be profitably given to the hospital garbage room or platform. In many hospitals, where sanitation is supposed to be best developed, the garbage plant is ill smelling, dirty, and inhabited by myriads of flies. Money spent for the construction of a comfortable, screened room, with cement floor and drain, and facilities for washing all cans before they are returned to the wards, is one of the best investments a hospital can make. Such a room can be kept as sweet and clean as any other part of the hospital.

The objection will be raised that the separation of garbage on the ward into that derived from the table or tray waste, and that coming from other sources, entails the handling of two cans in place of one, an event which is at once viewed with alarm by the supervisor of male help. Just as soon as efforts at saving become effective, however, the table waste will be readily contained in one small pail which will fit inside the larger can, and weights of garbage will begin to be recorded in ounces instead of pounds. It is the excessive waste that at the present time makes the handling of garbage a serious labor problem. Reduce the waste, and the expense of handling it also decreases.

Results Attained in Civil Hospital

There is no question but that even a limited attempt at inspection and control of garbage will result in substantial savings of waste. Any sane agitation will do some good, for in some hospitals waste is excessive.

In one civil hospital of some 400 beds, a brief survey of the garbage situation revealed some rather startling facts. The total daily garbage was over 1,000 pounds, of which only 303 pounds came from the kitchens. Separation of the waste into that derived from edible food, and that from other sources in five units yielding figures which applied to all units, showed that in the ward units 60 to 70 per cent of the waste came from edible food, and was equivalent to 1.02 pounds per patient. In the dining rooms of the personnel, 75 per cent of the waste came from edible food, and amounted to 49 pounds per day, or 0.35 pound per person per day. The food from dining rooms alone at 20 cents per pound cost $9.80 per day, or $294.00 per month.

As the survey progressed, it occasioned more or less remark and resulted at once in the recognition of the serious loss through waste, so that within three weeks the total daily garbage was decreased by 385 pounds. Other interesting facts appeared in this survey. The units

showing greatest improvement were those consisting entirely of ward patients; next in order of improvement were units containing private rooms and wards; the units consisting entirely of private rooms showed no response whatever. In one unit consisting entirely of wards, in which garbage was separated, the total garbage per day (average of 6 days), was 42 pounds, of which 21 pounds was derived from edible food (0.62 pound per patient). Later the daily average of total garbage from this ward fell to 20.5 pounds per day.

TABLE I.—SHOWING GARBAGE FROM HOSPITAL UNITS BEFORE AND AFTER WEIGHING GARBAGE AND LIMITED PROPAGANDA FOR SAVING

Hospital Unit	Character of Unit	Approximate Number of Patients	First Period Total Garbage in Pounds Per Day	Second Period Total Garbage in Pounds Per Day
A	Wards and rooms	53	101	37
B	Wards and rooms	54	127	25
C	Wards	42	51	13.5
D	Wards	33	25	7
E	Wards	27	27	6.3
F	Wards	34	50	25
G	Wards	36	36	20.5
H	Wards and private rooms	28	60	58.6
I	Private rooms	29	32	36.2
K	Private rooms	24	36	30.2
L	Private rooms	31	42	40.8
M	Private rooms	11	22	22.6
Total		412	609	322.9
Dining rooms (personnel)		285	134	34.9
Total, patients and dining room personnel		697	743	357.8

The figures given in this table are for unseparated garbage, and so do not tell the complete story as to edible food waste. The reduction during the second period was no doubt the result of elimination of substances previously improperly placed in the garbage, as well as the result of food savings; in this connection the failure of response by units consisting entirely of private rooms is of interest. The private room patient offers a problem somewhat different from that of the patient in the ward. The patient in the private room who pays from $5 to $10 per day, and often, in addition, has a special nurse, feels he is entitled to waste food if he so desires, and it may be good business on the part of the hospital to allow him this privilege undisturbed, as one of the perquisites for which he pays. The amount of food wasted by this class of patients is larger than that wasted in the wards, but is a much smaller per cent of the revenue received from these patients by the hospital, than is the waste of the ward patient who is cared for free, or pays an amount less than the average *per capita* hospital cost.

Not infrequently the special nurse seems to assume that her private room patient will esteem her services in proportion to the amount of material and food which she can waste for the hospital. But in spite of difficulties it is believed that much saving can be accomplished in private rooms by tactful education of special nurses, and by a better knowledge of the individual needs of patients on the part of the dietitian.

It is evident that the separation, weighing, and reporting of garbage is not an end in itself, but is only one of the essential factors in the control of food waste. The garbage report is a valuable index of what is going on, and of the results obtained by increased thought and care on the part of the entire personnel.

It is futile to complain of the wastefulness of maids, or the lack of attention on the part of nurses whose duties are frequently changed, and at the same time to provide no supervision in the preparation of trays, and no system showing unit saving or waste. Individualization is as necessary in the handling of maids as in caring for patients. The same maids who have previously contributed to the general waste, will be enthusiastic in its prevention when unit competition is established, and a new element of interest will be introduced into the humdrum of kitchen service.

From an administrative standpoint, the changes which seem necessary to correct present waste are a better coordination between heads of departments, and a readjustment of lines of responsibility. The dietitian should be responsible to the hospital superintendent, either directly, or through the superintendent of nurses, and should have authority in dietetic matters over the entire hospital. The presence of the dietitian, in the wards and unit diet stations, working in close cooperation with nurses will go far toward establishing the liaison necessary to maintain continued interest in giving the best service possible to the patient.

The ordinary table waste in most hospitals is so glaring that other less striking but considerable sources of waste are likely to pass unnoticed. One of these is the abuse of special diets. The institution of the diet kitchen, with a trained dietitian in charge, is one of the marks of progress in hospital administration. The restriction of the dietitian in many instances to the supervision of special diets instead of extending the benefits of her training to the entire hospital dietary, results not only in a loss of efficient help to the hospital, but places the diet kitchen less closely in touch with general hospital problems than it should be. In some hospitals, particularly public institutions where special diets are provided, numerous patients are placed on special diets without clear medical reasons for doing so, and these patients receive food which is of no special benefit to them, and in the preparation of which the expense for labor is more than doubled. It sometimes happens that special diets are substituted because of the poor quality of ward food. Such a situation is an indication of serious fundamental error in the general kitchen, which would be much less likely to develop were the powers of the dietitian extended to the general kitchen. As matters now stand in many hospitals, the authority and interest of the dietitian are limited by the door of the special diet kitchen. She expends too much time arranging lettuce leaves, and is only called to the floors by the head nurse as a last resort, in a despairing effort to pacify a recalcitrant patient who objects to having canned spinach served in summer time.

Having obtained a reduction of waste so that garbage cans no longer contain the large amounts of edible food previously present, the question may reasonably be asked, "Can this saving be shown in dollars cut from operating expenses?" This will depend on the effectiveness of the system of storeroom requisitions, and the attempt to answer the question will usually disclose that the storeroom system is also extremely lax. With a daily expense for food in larger hospitals of $500, a saving of $25 per day may be hard to demonstrate in figures. It will be a profitable proceeding to attempt the demonstration, however, for thereby other totally unsuspected leaks will undoubtedly be brought to light.

DIETITIANS MEET IN PHILADELPHIA

The regular monthly meeting of the Dietitians' Section of the Home Economic Association of Philadelphia was held at the Pennsylvania Hospital, Eighth and Spruce Streets, on November 6. Mr. Miller of the Swaco Company gave an interesting and instructive talk on Detergents and Soap Savers. The program for future meetings was discussed and plans made for joint meetings with the Philadelphia Company Medical Society, the Home Economic Association of Philadelphia, and the National League of Nursing Education. Miss Gladwyn of the Jefferson Hospital was appointed to report on current topics in the dietitian world at the regular meetings.

SOCIAL SERVICE DIETETICS IN RELATION TO JEWISH PROBLEMS*

By MARY L. SCHAPIRO, Director, Bureau of Home Economics and Dietetics, United Hebrew Charities, New York City.

Time travels fast in these days, and it is, seemingly, a long time since the days of the industrial revolution and the changes which it ushered in; yet we have not gone far enough to get away from the results of these changes, and it may not, therefore, be amiss to point out briefly how it affects our homes to-day.

The important change, which the industrial revolution has brought about is an economic one, i.e., society which was mainly agrarian has now become industrial. This means that many of the commodities which woman made in the home were taken out of it and made in the factory. Thus woman's position was changed from producer and consumer to that of consumer only—man being the producer. This state of affairs obtained largely until very recently.

We all know that in the industrial world competition has forced man to make every possible effort to increase his productivity. He has developed labor-saving devices and every possible expedient which makes for more efficient management of his business. The home has not had that same pressure brought to bear upon it, hence it has not kept pace with the progress of the race. Man has been content to brook in his home a degree of inefficiency which he would under no circumstances tolerate in his business. This was no fault of man but of society which took it for granted that every woman would, without training, be an efficient manager, and an able dietitian, nurse, and social director of the home.

It was only within the last century that a realization of the fact that it is necessary for woman to have some education was acted upon, and that women were admitted to higher schools. It is in the last quarter of the present century, however, that we have begun to realize that in addition to a general education, woman needs some specific education for her specific occupation—that of home-maker. It must be said to the credit of our country that more of its women are educated than are those of any other country in the world. How adequate this education is in training them for their life problems is best attested to by the fact that over 30 per cent of the applicants for military service had to be rejected for physical reasons. To be sure, some of the men were rejected for reasons for which the mother was not responsible; on the other hand, however, this figure might have been materially increased if women were also obliged to submit to a similar physical examination.

It might be well to digress for a moment and consider the life story of the average woman. She goes to school, perhaps through the elementary grades. At fourteen or fifteen she goes to work in the factory, the shop, or the office. Instead of receiving the training which the girl who stayed at home with her mother received from her mother, she actually becomes a boarder. The home is her restaurant, her lodging place. At twenty-five—sometimes earlier, sometimes later—she marries and has to conduct a restaurant and lodging house for her family, but is utterly unprepared. She is not nearly as well prepared as is her less enterprising sister. While the latter's pre-marital existence may have been more narrow, she has at least been fairly well trained for her future work by her mother, even though it has been by a rule of thumb method. The results for the girl who goes to work are lamentable. Many homes which might otherwise have been happy ones are yearly destroyed because of this. The return of the woman of industry to the home often spells tragedy. Fortunately, however, a great many of these tragedies may be averted by the judicious Home Economics and Dietetics social worker.

The fact of the matter is—and people are beginning to realize it—that the feeding of the family is a job for which one needs to be trained. If this is true of the average woman, how much more true is it of the poor. Social workers realize that the poor, in addition to being poor, are also inefficient. Perhaps this is one of the reasons why they are poor. At any rate, they have need for fully as much special training as has the average woman. Organizations with broad social vision have already recognized this need and are meeting it.

With even a comparatively short course in the fundamentals of home-making, the woman who has had this course makes a very much more efficient member of society, a better citizen and mother and a better trainer of our future citizens, than does the home-bred girl. The types of women that we deal with in the Bureau of Home Economics and Dietetics, however, require considerably more than this, because most of them are Jewish immigrants who go to work at an early age, and who, because of this, have not had the opportunities for schooling which our American girls have had. They, therefore, have not been able to make proper adjustments to their new environment. In addition to this, they start out hampered by a code of dietetic laws and a set of customs which they do not know how to convert into present day, usable form. To be sure their children go to school, but because the teachers, for the most part, have not understood the dietary restrictions, they have been unable to make their lessons effective.

In the space of this paper, it would be impossible to go fully into the matter of dietary laws and customs, but in order to point out some of the problems that must be considered when dealing with Jewish families, I will mention a few of the most important.

Important Jewish Dietary Laws

The dietary laws are sanitary and hygienic rather than religious, although, as has often been done with masses of people who were not enlightened, a religious aspect has been thrown about them in order to insure their observance. People have been made to feel that the breaking of one of these dietary laws was sinful. It really was breaking the law—a physical law rather than a religious law—but this they would not have understood.

The dietary laws divide themselves into four groups:

(1) Prohibition of certain foods.
(2) Partial prohibition of certain foods.
(3) Regulations governing cooking practices.
(4) Regulations governing holidays and the Sabbath.

* Read at the Second Annual Convention of the American Dietetic Association, Cincinnati, O., Sept. 8-12.

I am going to take the staple foods and go through the dietary laws which relate to each one of them.

Meat.—Only such meat as comes from animals that chew the cud and have cloven hoofs may be used. This bars the swine and similar animals. All cattle for consumption must be killed in a prescribed manner and can be used only after thorough inspection. After the killing it is again inspected and if the animal is found to be anatomically and physically in good condition, its sale is permitted. No such meat may be kept more than three days. After the meat reaches the housewife, it is soaked for a half hour and salted for an hour in order to remove the blood. A number of reasons are ascribed for this rule, which I will not go into here.

Fish.—All fish must have fins and scales. No scavengers are permitted because of danger of ptomaines. Shell fish are prohibited because of danger of typhoid; eels because of the danger of mistaking them for water snakes.

Cereals, Fruits, and Vegetables.—Cereals must be carefully looked over lest they be wormy. This is done by placing some on a hot plate; if there are any worms they come out. Dried fruits must be cut into, lest they be wormy, before cooking. Dried vegetables must be looked over in the same way as cereals.

Milk and Dairy Products.—One of the regulations governing cooking practices which has been responsible for a great deal of difficulty in the handling of the Jewish food problems, has been the law forbidding, "the seething of a kid in its mother's milk." This means that one may not eat meat products at the same meal that milk or dairy products are served. This prohibition makes it impossible for butter or cream sauce to appear on vegetables at the same meal with meat, and is a great stumbling block in the way of those who would plan menus for Jewish homes. On the face of it, this ruling is humanitarian; actually, one finds that it is also hygienic.

Sabbath and Holidays.—There are special regulations pertaining to the Sabbath and holidays which are extremely interesting but for which I will not have time.

As already indicated, the diet of the Jew no matter how poor, has many of the qualities of the diet of the rich man. It is tasty, well cooked, nourishing, and there is plenty of it. Jewish cookery is famous, and justly so. Many a man, long away from his home returns to relish his mother's cooking.

Defects of Jewish Cookery

While it is often rightly claimed that there is no Jewish cookery because it varies with the country from which it comes—that there is Roumanian cookery, Russian cookery, and others like them—it is, nevertheless, true that all Jewish foods have certain common qualities which really make for a distinctly Jewish cookery. This cookery, as has been proved by scientific study, has not only common virtue, but also common defects. For example:

(a) The diet is *unbalanced.* The mineral content is deficient. There is not enough use of fruits, vegetables, or cereals. There is a disproportionate use of some foods to the exclusion of others as, for example, too much herring and not enough spinach.

(b) The diet is *over-rich.* Too much fat and sweetening are used.

(c) The diet is *over-seasoned.* Too much salt, pepper, mustard, spices, vinegar, and pickles are used.

While, as already indicated, the Jewish diet has many desirable characteristics, the above mentioned defects are sufficiently important to require most careful thought and consideration, especially since the Jewish people suffer from so many dietary diseases because of this. As is now generally believed, cancer is a disease caused by irritation. Physicians on the east side seem to be of the opinion that cancer of the stomach is more prevalent among Jews than among the people of any other race. We all know that the use of condiments and high seasonings has an irritating effect on the mucous membrane of the stomach. Diabetes is very prevalent among the Jewish people, so also are many other dietetic ills. This indicates the need for dietetic study among all Jews. But the need seems to me to be especially keen among the poorer Jews.

The diet of the poorer Jews shows all the characteristic defects of the diet of the more well-to-do, except that all of these defects are emphasized and made worse by lack of means and lack of knowledge. For example, the poorer the family, the less milk, fruit, and vegetables are bought in proportion to the total amount spent for food. To produce a change, a long, slow, tedious process of teaching is necessary. If we hope to alter habits, we must furnish substitutes. This matter of changing habits, particularly such primal ones as food habits, is a very difficult one for adults. It is especially difficult among Jews. With the Jewish housewives, as with the continental Europeans, cooking is a tradition, an art. With the Anglo-Saxons, cooking has never been an art; American or English women will, therefore, take instructions gladly, while the Jewish housewife will smile at the suggestion that any young American woman can teach *her* how to cook.

However, knowing that Jewish mothers will do anything for their childen—even listen to me—I invite them to attend a series of talks on how to keep their children well. Apart from the fact that every series opens with a statement by some one to the effect that she "would know what to cook if she only had the money with which to buy," I usually get their interest when I point out that medical practice has changed from that of simply curing people after they are ill, to that of preventing the illness. Thus we find vaccines which prevent epidemics from breaking out; we find antitoxins which ameliorate and lessen the terrors of the disease for those already infected. Preventive medicine is a new phase which has not yet reached its height, and preventive dietetics is an important part of it. Mothers realize the force of this. The lectures consist of a simple statement of the body's nutritional needs, and how they can be met. The reactions are very interesting. On one occasion, after I had recommended the use of certain foods, and the disuse of certain others, one woman said, "You know what's healthy, but we know what's good." I accepted the challenge and demonstrated food which they declared good when they tasted it. The meeting always breaks up with a feeling that, contrary to expectations, this was "cheap as well as good."

Work of Social Service Dietitian

You may be interested to know briefly of just what my work consists. There are two main divisions. The United Hebrew Charities has visitors under whose care our families come. I conduct a series of talks, conferences, and demonstrations for these visitors on the following:

Food facts.—Function, types, and needs.

Low priced menus.—Feeding of children, the sedentary, and aged; demonstrations.

Feeding of pregnant mothers.—Feeding of nursing mothers and infants.

The doctor and the diet.—Fluid, semi-fluid, liquid and soft, solid, and convalescent diet; regular hospital diet, diet in fevers and infections; demonstrations.

Diet in disease.—Anemia, tuberculosis, rheumatism, gout, stomach and intestinal disorders.

"The Visitor in the Kitchen." Series of talks.
Hygiene of the home.
Budget planning.

This is a sort of background, by means of which the visitors are expected to be better able to plan for their families, and, when special dietetic instruction is necessary they confer with me. If possible, I help them to aid the families, otherwise, either my assistant looks out for the family, or I myself do.

The second part of my program consists of conducting the series of lecture demonstrations already referred to above and meeting groups of our women, as well as those of the neighborhood, in various settlements and housekeeping centers. The mothers seem to be extremely interested in the meetings, and the attendance is very good. My method of procedure is to prepare the food and start the meal cooking before the arrival of the women. While it is cooking we talk about food values in general and the meal in the process of preparation, in particular. I devote part of each of these meetings to a discussion of:

(1) General functions of food. Charts used.

(2) Food during pregnancy, nursing, infant feeding. Luncheon, breakfast, and dinner requirements.

(3) Food for child of pre-school age.

(4) General hygiene. Meatless diet and similar subjects.

(5) Hot weather meals.

The following is a set of menus:

MENU

BREAKFAST

Prunes Oatmeal
Bread and Butter Cocoa
Cost for five portions.....$ .35

Hominy Raisins
Bread and Butter Cocoa
Cost for five portions.....$ .35

LUNCHEON

Barley Vegetable Soup
Hominy Pudding Bread and Butter
Cost for five portions.....$ .38

Fish and Potato Stew (Whiting $0.06 per pound)
Bread and Butter Cocoa
Cost for five portions.....$ .37

DINNER

Turkish Pilaf Steamed Rice
Bread Baked Apples with Raisins
Milk (for children) Tea (for adults)
Cost for five portions.....$ .50

Kidney Bean Stew with Rice
Spinach Brown Betty Cocoa
Bread and Butter
Cost for five portions.....$ .50

Vegetable Soup Baked Potatoes
Stuffed Fish (Haddock) Stewed Prunes
Milk (for children) Tea (for adults)
Cost for five portions.....$ .50

DINNER (Hot Weather)

Lettuce Potato and Egg Salad
French Dressing Bread and Butter
Chocolate Blanc Mange Cocoa
Cost for five portions.....$ .57

Lettuce Bisque Fish, String Bean and Cucumber Salad
Bread and Butter Stewed Apricots
Tea (for adults) Milk (for children)
Cost for five portions.....$ .57

SANDWICHES FOR PICNIC LUNCH

Peanut Butter Sandwich
Cream Cheese with Cucumber, Whole Wheat Bread
American cheese grated with mustard for flavor
Egg, Onion, and Lettuce
Sardine, onion, and lemon, whole wheat bread.
Cost for five portions.....$ .35

I plan that each day's ration shall include at least from two and a half to three quarts of milk. This, of course, is milk which is bought unbottled. Except for infant feeding, our families cannot afford bottled milk.

Gratifying Results of Work

The tales which the visitors report to me on the reactions of the different women are most interesting and gratifying. As an example of what I hear most often I will quote the report of one visitor. She told of a mother who goes to work—an extremely conscientious woman willing to go to any length in order that her children may be properly cared for. This woman told her that she had fed her children on corn-flakes for breakfast, salmon or delicatessen sandwiches for luncheon, and that in spite of the drain on her resources which this care entailed, the children were anemic and sickly. But since she has been attending the lectures with the "lady," she has been using oatmeal with a few raisins as suggested, peanut butter sandwiches, and has prepared the sort of lunches suggested, so that now she is not only able to save money, but her children are beginning to look rosy. One of the results I noticed is that mothers are beginning to prepare lunches for the children instead of giving them a few pennies and telling them to buy some things from the delicatessen. This, of course, is an improvement. Another improvement I have noticed is that, instead of giving children pennies with which to buy candy and cloy their appetites before meal time, they now give them raisins and dates after meals as desserts.

I realize fully that in spite of the fact that we are contemplating a much broader program next year, the work which we as an organization are able to do is only a drop in the bucket, compared with what ought to be done. As already indicated, we have been endeavoring to reach people who are not our clients, but for the most part our concern has, of necessity, been with those who are. I am sure that a great many might have been prevented from becoming our clients if they had known in the first place how to take care of their families properly. I have a positive conviction that a great many of those who are already our charges, may be rehabilitated through the sort of personal service which the Home Economics department is able to render. However, I feel very strongly that the community should see to it that all of its citizens receive the right kind of training. This may be given in the schools, the settlements, the clinics and by the relief societies, all of which should be working together along this line: the schools by training the children; the evening schools and settlements by running evening classes for girls who work during the day and who are about to be married, and also classes for young married women; and the clinic by doing preventive work with pregnant mothers, as well as with those who are already pathological diet subjects. In order to accomplish this end we have need of the right kind of people. Unfortunately there is a dearth of them. Just what the equipment of the right sort of person for this work should be is very difficult to say. It is certain that the social service home economics worker should have dietetic training of a very high order because, quite unlike her present position at the hospital where she follows physician's orders, as a social service dietitian she must often prescribe. She should have social case work training because, otherwise, she is likely to hamper others who are already working with a given family. She should have teaching ability, as all of her work is teaching. She should know something about nursing because she is often

the person who must bring first aid to the home. In fact, just what she should not know is very much more difficult to say that what she should know. It is certain that she should be a well trained, practical, sensible human being.

Aim of Social Service Dietitian

To summarize: The aim of a social service dietitian should be threefold: (1) To look after the health of the community family by working with the individual family. Jewish families can best be handled by a Jewish person who understands the Jewish problem. The work should be preventive as well as curative.

(2) To look after the economic conditions of the family by efficient management of the family budgets so as to include not only efficient buying, but also to prevent waste. The well planned family budget is like the budget of a great nation, a barometer of all its activities. It shows not only solvency or insolvency, but also all of the various human interests.

(3) To look after the esthetic aspect of the home in order that the mother's psychological reactions toward the humdrum drab existence of the slums may be a happier one.

NEWS NOTES OF DIETITIANS

Mrs. Lillian B. Moore has accepted the position of dietitian in the Monmouth Memorial Hospital, Long Branch, N. J.

Miss Ruth Shott has recently gone to the Texarkana Sanitarium, Texarkana, Tex., as dietitian. Miss Shott is pleased with the situation as she found it in this private sanitarium of about fifty beds.

Miss Mildred Taylor has been transferred from Walter Reed Hospital, Takoma Park, D. C., to Letterman General Hospital, San Francisco. Miss Taylor will be assistant to Miss Evaline Kerr, who has been dietitian at this military hospital for some time.

Miss Edna Rodaway has recently assumed the duties of dietitian at the Samaritan Hospital, Philadelphia. Miss Rodaway took two years' training at Battle Creek and had one year of practical work there. Later, she was with Dr. N. B. Potter, Memorial Laboratory and Clinic, Santa Barbara, Cal., for nine months, and at the time of accepting the position in Philadelphia, she was dietitian at the Garfield Park Hospital, Chicago.

Binghamton City Hospital, Binghamton, N.Y., has recently secured Miss Wilma Pierce to supervise the dietary department of that hospital, and Miss Dorothy Phillips of Pratt Institute to assist her. Miss Pierce graduated from Teacher's College and took student training with Miss Geraghty of New Haven Hospital. New supplies for the kitchen and new containers and carriers for food are being purchased to help facilitate the work of these young women.

Miss Louise Stevenson will continue the good work begun by Miss Pollock in the dietary department of the St. Louis City Hospital. Dr. Rolla Henry, superintendent of this hospital, appreciates what a good dietitian means to a hospital and is making readjustments which will enable Miss Stevenson to devote time and thought to important features of her work. Too often so much of a dietitian's attention is required for merely mechanical work or for details which might be handled by some one with less responsibility, that she has no opportunity to develop any real work in dietetics. Consequently, it is always gratifying to find a hospital in which this fact is recognized. Miss Stevenson was for a time dietitian at the Baptist Memorial Hospital, Memphis, Tenn.

Miss Harriss of Massachusetts General Hospital is offering the following training to student dietitians: diet kitchen, practice in calculating and weighing diets for special diseases; supervision of cooking done by pupil nurses, except that for special cases; supervision of all diets sent from diet kitchen—during this time the student works in the laboratory making tests such as for sugar, acetoms, and specific gravity, so that she is familiar with the needs of the various patients; main kitchen, administrative work, supervision of food in serving rooms in wards, both public and private; marketing; attending lectures by doctors. The course is five months in length, the student's board and laundry are furnished by the hospital, and the student provides her own room outside the institution.

Was it the diet or the kindness or both, which brought about the change of attitude in the following instance, which was reported from the Letterman General Hospital: An interested ward surgeon called at the diet kitchen to learn if special attention might be given to one of the boys in the prison ward. He was a young, promising boy of twenty, but knew only the worst side of life. This lad, handcuffed, his manner bold and aggressive, came to talk with the dietitian. He said no one could handle his case and that he was a strong man because he drank lots. The dietitian said she would gladly help him if he would help her—and eat the food which she prepared for him. He promised to do this. The special dishes pleased the boy and the next day when he came to the kitchen he acted ashamed of his handcuffs and hid his hands. He said, "Say, that buttermilk—'Belgiven', did you call it?—hit the spot, and the prune bread and jelly was real stuff." A week or so later he was examined for an operation. The surgeon explained how much better he was, and the boy replied with pride, "My chow is as good as the President's."

AMERICAN RED CROSS TO CONTINUE HOSPITAL PROGRAM

The American Red Cross has been requested to continue its hospital program, under which it will have charge of recreation for patients in all army general hospitals under the supervision of the hospital commanders, and to continue its system of Home Service in all hospitals, camps, posts, and other army stations. This was decided at a conference of the Education and Recreation Branch, War Plans Division of the General Staff of the Army, held at Louisville, Ky., on December 9-11, 1919. At the conference Red Cross officials participated and discussed with the army officers various problems concerning their work. The conference was called by Major General William G. Haan to discuss the new education and recreation program for the army, which was instituted last November.

The army representatives attending the conference were Maj. Gen. William G. Haan, director of the War Plans Division; Brig. Gen. Johnston Hagood, Commanding General, Camp Eustis, Md.; Col. Robert I. Rees, Chief of the Education and Recreation Branch; Lieut. Col. Jason S. Joy, Chief of Camp Activities; Col. Roger Fitch, Chief of Education; Col. Godwin Ordway, Chief of Moral Training; Dr. Robert C. Mann, chairman, Civilian Educational Advisory Board, War Plans Division; departmental education and recreation officers from all the major camps and posts, including general hospitals.

VENEREAL DISEASES AND THE HOSPITAL

Conducted by ALEC N. THOMSON, M.D.
Director, Department of Medical Activities
The American Social Hygiene Association, 105 W. Fortieth St.,
New York City

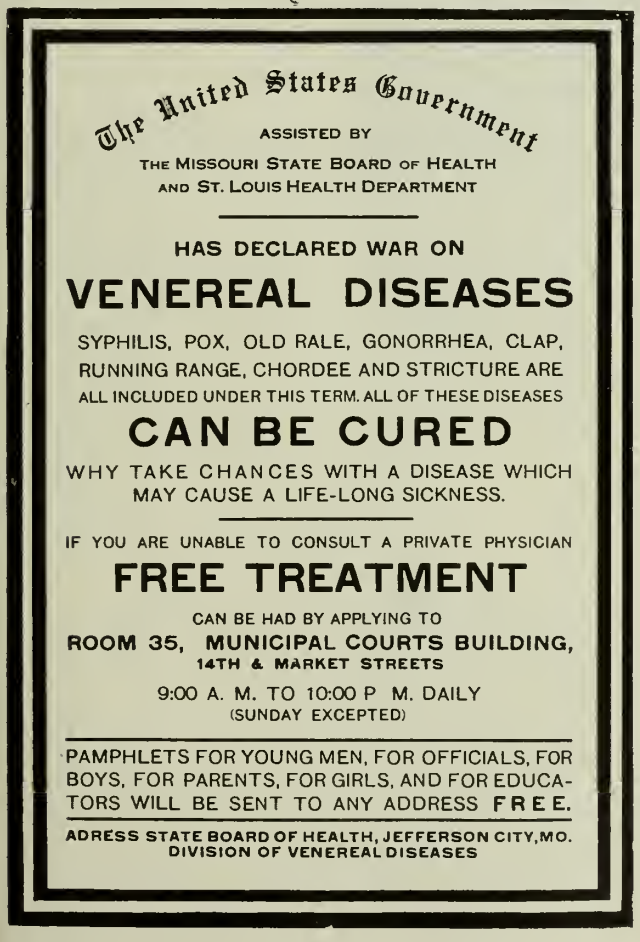
ST. LOUIS VENEREAL DISEASE CLINIC

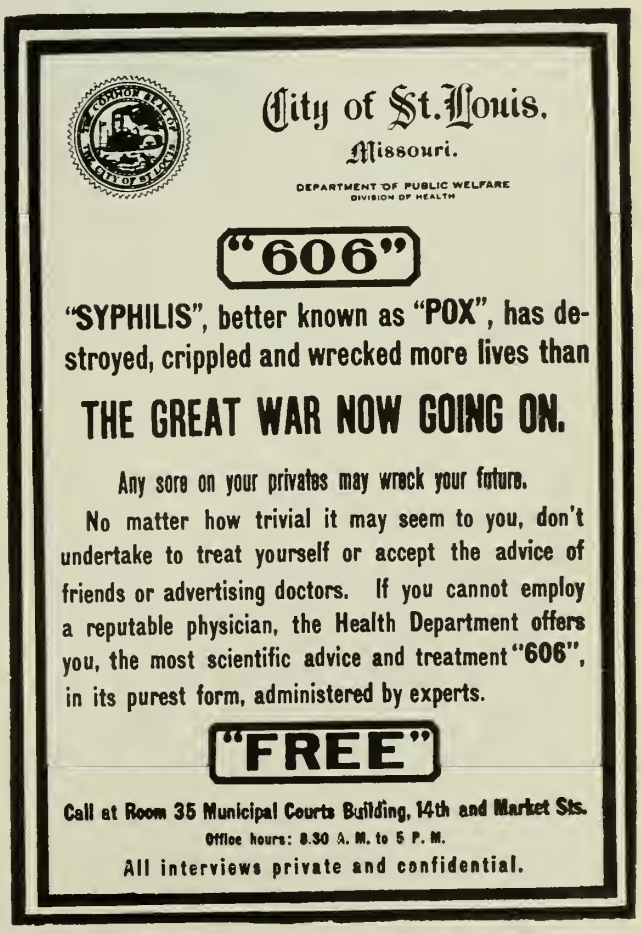
The venereal disease clinic maintained by the Department of Public Welfare, Division of Health, St. Louis, Mo., was opened in February, 1918, as a prophylactic clinic only. Publicity was given to it by means of signs displayed in the toilets about the city. These signs were worded to make them look as much as possible like similar signs displayed by quack nostrums, which had for years been profitable sellers.

The results were so active and numerous from this display that within thirty days it became apparent that the department must undertake curative work for the checking of gonorrhea. In following out this purpose, Dr. Max C. Starkloff, health commissioner, called a meeting of the mayor, and police and judiciary officials, with a view to soliciting their support. From this time on, women picked up on the streets, caught in raids on houses of ill fame or assignation hotels, were referred to the clinic for examination. Quarters were established for women found to be infected, and the clinic, which had opened as a prophylactic one only, developed into a permanent institution for the treatment of all venereal diseases.

Clinic Serves Host of People

From the opening day until the first of November, 1919, this clinic treated 4,086 men, who made 13,641 revisits. Of the total number treated, 1,208 were syphilis cases who only made 1,469 revisits. During the same period, 1,404 cases of gonorrhea were treated. As this is a public health clinic, the syphilis cases receive only arsphen-


The United States Government
ASSISTED BY
THE MISSOURI STATE BOARD OF HEALTH
AND ST. LOUIS HEALTH DEPARTMENT
HAS DECLARED WAR ON
VENEREAL DISEASES
SYPHILIS, POX, OLD RALE, GONORRHEA, CLAP, RUNNING RANGE, CHORDEE AND STRICTURE ARE ALL INCLUDED UNDER THIS TERM. ALL OF THESE DISEASES
CAN BE CURED
WHY TAKE CHANCES WITH A DISEASE WHICH MAY CAUSE A LIFE-LONG SICKNESS.
IF YOU ARE UNABLE TO CONSULT A PRIVATE PHYSICIAN
FREE TREATMENT
CAN BE HAD BY APPLYING TO
ROOM 35, MUNICIPAL COURTS BUILDING,
14TH & MARKET STREETS
9:00 A. M. TO 10:00 P M. DAILY
(SUNDAY EXCEPTED)
PAMPHLETS FOR YOUNG MEN, FOR OFFICIALS, FOR BOYS, FOR PARENTS, FOR GIRLS, AND FOR EDUCATORS WILL BE SENT TO ANY ADDRESS FREE.
ADRESS STATE BOARD OF HEALTH, JEFFERSON CITY, MO.
DIVISION OF VENEREAL DISEASES


City of St. Louis.
Missouri.
DEPARTMENT OF PUBLIC WELFARE
DIVISION OF HEALTH
"606"
"SYPHILIS", better known as "POX", has destroyed, crippled and wrecked more lives than
THE GREAT WAR NOW GOING ON.
Any sore on your privates may wreck your future.
No matter how trivial it may seem to you, don't undertake to treat yourself or accept the advice of friends or advertising doctors. If you cannot employ a reputable physician, the Health Department offers you, the most scientific advice and treatment "606", in its purest form, administered by experts.
"FREE"
Call at Room 35 Municipal Courts Building, 14th and Market Sts.
Office hours: 8.30 A. M. to 5 P. M.
All interviews private and confidential.

At left: Sign used for advertising the venereal disease clinic in St. Louis. The clinic is financed by city, state, and federal funds, and is one of the recognized clinics under the supervision of the United States Public Health Service, Bureau of Venereal Disease. At right: One of the signs used for publicity when the venereal disease clinic was opened in St. Louis. These signs were worded to make them look as much as possible like similar signs displayed by quack sellers, which had for years been profitable sellers.

amine. They are referred for further treatment to Barnes Hospital and Barnard Skin and Cancer Clinic. Both these institutions send cases to the municipal clinic in order to take advantage of the free arsphenamine. As gonorrhea is a public health problem to the time of cure, full treatment was given to the 1,404 gonorrhea cases which resulted in a total of 11,434 revisits. The cases of chancroid admitted numbered 461, and the number of revisits made by them was 1,148. Cases coming under the jurisdiction of the city court made 1,013 visits for the purpose of physical examination.

Placard wall displays are features of the men's waiting rooms in the venereal disease clinics maintained by the Department of Welfare in St. Louis. The clinics are held in the Municipal Court building.

From March 1, 1919, to December 1, 1919, 360 women were interned who had some form of venereal infection. They were given a total of 5,272 days' treatment.

Utilizes Space and Time

The clinic has been financed by city, state, and federal funds, and is one of the recognized clinics under the supervision of the United States Public Health Service, Bureau of Venereal Diseases. The personnel consists of three doctors and two female attendants. It is interesting to note that the clinic is open from 9 a.m. until 10 p.m. These are unusual hours. The modern dispensary and clinic is utilizing its quarters to the utmost, thus reducing overhead charges by having equipment in use as much of the time as possible.

Municipal Building Utilized

Follow-up work in this clinic is in charge of a woman who has police power. The quarters for the clinic are in the Municipal Courts Building. Those in charge believe that because of the location of the clinic the patients come more readily, as they do not advertise, by entering a public building, that they are attending a venereal disease clinic.

One of the outstanding features of this clinic is the placard wall exhibit displayed in the waiting rooms for men and women. These placards describe and illustrate gonorrhea and syphilis. They explain why treatment is necessary, why it takes time to cure, and how, if an adequate course of treatment is followed, the disabling complications can be prevented. It is believed that this method of placard display saves the staff much time in answering questions and also acts as an important factor in impressing upon the patient the necessity of continuing under observation until pronounced cured by the doctor. As an aid in the follow-up work, clinic educational methods have great value. This is not left to the wall display entirely. The staff treat the patients as human beings and not merely as cases, realizing by experience that the cooperation of the patient is necessary for the success of the clinic.

ACT TO CONTROL VENEREAL DISEASE

The principal objects of the campaign for nation-wide control of venereal diseases, says Charles V. Herdliska in the *Public Health Reports* are to enlarge and improve courses in the diagnosis and treatment of venereal diseases so as to include laboratory and clinical facilities in colleges where these courses are being taught, to have such courses introduced as major courses in colleges where they are not being taught in order that students may be equipped to handle the diseases when they begin to practice, and to offer special short courses in the latest scientific methods for men who are now practising. While the program applies primarily to medical schools and colleges, the plan is for all schools of dentistry, pharmacy, and the like to give training in the pathology of venereal disease.

Preliminary to the presentation of this program to the medical and allied schools of the country, conferences were held at the universities in Washington, D. C., including the professional schools of Georgetown, George Washington, and Howard Universities. At these conferences there were addresses on the sanitary attack of venereal diseases; the better teaching of venereal diseases in

schools, clinics, and hospitals; the place of venereal diseases in medical, dental, and pharmaceutical schools, in hospitals, clinics, and training schools for nurses; the importance of a proper knowledge of venereal diseases, not only to physicians, but to dentists, druggists, and nurses, and to college physical directors. Social hygiene films were shown and resolutions were adopted.

The program of these conferences was suggested as the form of procedure in approximately 350 schools over the United States, and favorable replies were received from all. An attempt is now being made to secure as early as possible the establishment in rural communities of extension courses for physicians and dentists who can not leave their work for post-graduate or special courses.

CREATING A BETTER ATMOSPHERE IN THE VENEREAL DISEASE CLINIC

What can I do in my venereal disease clinic to maintain the interest of my patient? In answering this question one must of necessity take up all angles of clinic management. No clinic can maintain the interest of the patient unless it renders service. No clinic can render service unless it has adequate facilities for maintaining its histories in a readable form right up to the minute of the patient's last visit. In order to have everything recorded on the history that should appear, the clinic must of necessity be properly equipped as to instruments, laboratory facilities, and personnel. Furthermore, in delivering service to the patient it becomes necessary to provide him with inspiration and, when needed, stimulation to the end that he will keep up his attendance until pronounced cured after adequate tests are made.

The social service and follow-up work act as the stimulant. The "atmosphere" of the clinic is the inspiration. This atmosphere is very largely the result of a combination of circumstances and conditions—the cheerfulness of the personnel; the cleanliness and other physical characteristics of the clinic itself; the total absence of a "holier-than-thou" attitude on the part of the physician and nurse toward the patient; the evident scientific, careful work being done, and the exhibition and use of illustrative material in order to show the patient what is the matter with him and why.

Things for the Clinic Wall

For years various clinics throughout the country have displayed upon their walls numerous pictures, charts, printed signs, and the like. This material is sometimes in the waiting room, the treatment room, or the history room. At the Brooklyn Hospital for years the walls of the waiting rooms have carried a rather extensive display.

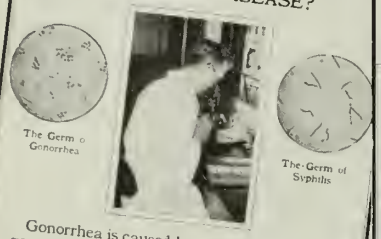
In an old description of the Brooklyn Hospital Dispensary published in 1916 the statement is made that the patient must be inoculated with the "stick-to-it-until-you-are-well" idea. This demands constant advice and encouragement. The staff must live the idea and the walls must talk the idea. Variety is essential. Change draws attention. While the basic matter is always the same, the presentation varies. Variations in shape, color, type, and wording are considered of value. This is well illustrated by the photographs shown of the clinic waiting room.

A New Set of Clinic Placards

The American Social Hygiene Association, in order to meet the demand for material to be posted in clinics, has devised a series of eight placards based upon the work

At the Brooklyn Hospital for years the walls of the waiting rooms have carried an extensive display of illustrative material on the subject of venereal diseases.

What Is The Cause Of Venereal Disease?



Gonorrhea is caused by a living germ called gonococcus.

When the germ gets a foothold on the lining of the sex organs (male or female) it grows rapidly and causes inflammation.

Syphilis is caused by a germ called spirochaeta pallida.

Entering a cut or scratch anywhere, it soon makes its way into the blood.

To cure these diseases completely it is necessary to kill all the germs. This is difficult and requires patience and faithful treatment.

Are Methods Of Diagnosing Venereal Disease Known?

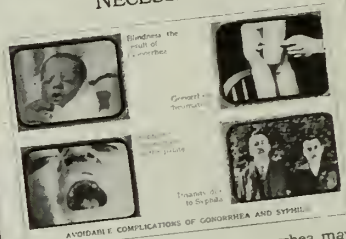
Yes—In addition to a study of the patient's symptoms, the doctor makes use of the microscope to find the germ.

He also uses, when necessary, special instruments for examining the sex organs.

Frequently blood examinations and other laboratory tests are made.

Only a competent doctor, equipped with modern laboratory facilities can make these examinations.

Why Is Thorough Treatment Necessary?



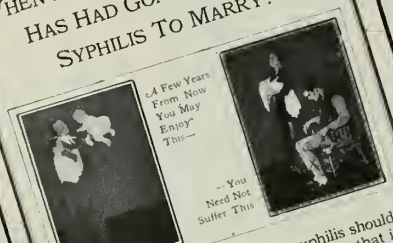
AVOIDABLE COMPLICATIONS OF GONORRHEA AND SYPHILIS

Unless completely cured, gonorrhea may cause kidney disease, heart disease, rheumatism, sterility (in men or women) and other serious complications.

Uncured syphilis may linger in the body for years causing destruction to muscles, bones, nerves or brain. Locomotor Ataxia, paresis and rupture of the large arteries may result.

Both gonorrhea and syphilis may be passed on to husband or wife. Syphilis may be transmitted to the children.

When Is It Safe For One Who Has Had Gonorrhea Or Syphilis To Marry?

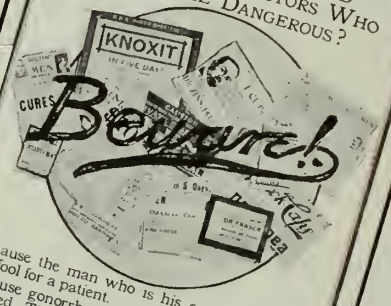


One who has gonorrhea or syphilis should not marry until assured by the doctor that it is safe to do so.

Unless one is completely cured, he may render his life partner an invalid. Syphilis, if not completely cured may be passed on to the children.

Only a reputable doctor who makes use of modern laboratory tests is competent to make these examinations and give advice.

Why Are Advertised Remedies And Doctors Who Advertise Dangerous?



Because the man who is his own doctor has a fool for a patient.

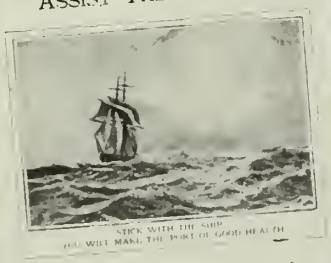
Because gonorrhea and syphilis are *not* easily cured. Time, patience and skill are necessary.

Because doctors who advertise are generally more interested in your money than in your life or health.

Because many of these remedies only remove outward signs, making one think he is cured. Years later the serious results of gonorrhea or syphilis may show up suddenly.

5

How Can The Patient Assist The Doctor?



1. By coming to the clinic promptly and regularly.
2. By obeying implicitly every direction the doctor may give.
3. By keeping cheerful and patient, living a happy, normal life.

Follow these rules, don't get discouraged and you will get well.

What Can You Do To Save Others From Venereal Disease?

1. Get well.—You will then not spread the disease to others.
2. Back up the Health Department in its fight to control Venereal Disease.
3. Instruct your children in the facts of sex in a wholesome way. Don't let them get this information from unclean sources.
4. Spread information about the dangers of prostitution and the seriousness of Venereal Disease.
5. Aid in the campaign to combat commercialized prostitution.
6. See that wholesome recreation is provided for your community.

If you know of anyone who needs treatment, send him to the clinic.

7

Educational Pamphlets

The nurse will be glad to supply you with copies of pamphlets displayed below.

Please ask for only those which you can use or distribute.

8

New series of placards devised by the American Social Hygiene Association and approved by the United States Public Health Service, ready for distribution. The eight placards, each one numbered, are to be used in consecutive order.

done in clinics throughout the country. In its announcement of this placard exhibit the Association says:

"The modern dispensary for the treatment of venereal disease does more than provide for the physical needs of the patient,—it also serves as a center for the dissemination of knowledge concerning the prevention and cure of venereal diseases.

"This set of eight placards is intended to be displayed on the walls of the waiting room of the dispensary. Each placard measures 10 by 14 inches, is neatly designed, and printed in colors. The general tone is encouraging and stimulating, great care having been exercised in their production not to frighten the patient unduly, but rather to explain the importance of continued and faithful treatment. One of the placards is so arranged that pamphlets which a dispensary may wish to distribute may be attractively displayed on it."

JUDGE NOT

In men whom men condemn as ill,
I find so much of goodness still;
In men whom men pronounce divine,
I find so much of sin and blot,
I hesitate to draw a line
Between the two, where God has not.

—Joaquin Miller.

The walls of the clinic waiting room should contain placards, pictures, and charts for the dissemination of knowledge concerning the prevention and cure of venereal diseases.

Variety is essential in the charts and placards hung on the walls of the venereal disease clinic. Change draws attention. Variations in shape, color, type, and wording are considered of value.

OCCUPATIONAL THERAPY, VOCATIONAL RE-EDUCATION AND INDUSTRIAL REHABILITATION

Conducted by DOUGLAS C. McMURTRIE, Director Red Cross Institute for Crippled and Disabled Men and MRS. CARL HENRY DAVIS, Adviser in Occupational Therapy, Milwaukee-Downer College.

MEDICAL SERVICES FOR CANADIAN SOLDIERS

Some interesting facts on the work of the Medical Services Branch of the Canadian Department of Soldiers' Civil Re-establishment are given in a pamphlet recently issued by the department. To quote:

"For purposes of administration, Canada is divided into units, in each of which is situated a branch of the Medical Department centrally located, the surrounding country being covered by Medical Representatives so placed as to render the service highly efficient for those requiring treatment.

"The growth and activities of the Medical Branch have been tremendous. In June, 1918, the number of patients cared for was only 1,200; by the end of June, 1919, this had increased to 12,870. The patient strength of the Department on August 1, 1919, was as follows:

Medical and Surgical Patients, in hospital.	4,176
Medical and Surgical Patients, out-patients	6,353
Tubercular Patients	1,787
Insane	737
Incurable	85
Total under treatment	13,138

"These figures represent only a small portion of the vast amount of medical work—including medical reports, expert advice, special examinations, interviews, personal and otherwise—which of necessity follows when dealing with such a large number of men and their relatives scattered over this great Dominion, and having many varied viewpoints and requests.

United States official photograph of work done in occupational therapy departments of government hospitals.

"Men who have a recurrence of illness on account of war disabilities may return to the department for free treatment under the same financial condition as existed prior to their discharge from the service. Treatment may also be given to ex-members of the Canadian Forces in Canada who fall ill from any cause within one year after discharge from the army, with certain exceptions.

"Among other phases of this work is the dental treatment of those undergoing medical or vocational care by the department.

Economical Medical Services

"The medical services are conducted with due consideration to economy and there is no overlapping of hospitals. There are under the control of the Department ten hospitals having a total accommodation of 1,370 beds, and fifteen sanatoriums for tubercular patients, providing an aggregate of 923 beds, at the present time. In thirteen other sanatoriums throughout the country, not under the control of the department, wards representing 1,020 beds are set apart for the accommodation of patients who require treatment for tuberculosis.

"The advantages of the Canadian system have been recognized and closely studied by the other allied countries—a compliment in itself. Actual records show that over 75 per cent of those ex-members of the Forces who have fallen a prey to the disease and who have been treated in the sanatoriums of this department are able to resume useful occupations in civil life.

"Canada, by the establishment over two years ago of a government-controlled factory for the manufacture of standardized and perfected artificial limbs, orthopedic boots, and other surgical appliances, originated a policy which is being followed by allied countries. This was considered necessary to prevent the possibility of the exploitation by private firms. Over 85 per cent of the members of the Canadian Forces who require artificial limbs have been satisfactorily fitted with appliances manufactured in the factories of the department. Amputation cases totaling 3,990 have been fitted with artificial limbs. Special orthopedic boots to the extent of 3,076 pairs have been provided; and a grand total of 14,371 amputation and orthopedic cases have been given service by the branch since its inception.

Standardized Type More Satisfactory

"Not only are the artificial limbs made by the department less expensive and more satisfactory than privately manufactured articles, but an added advantage is that, with a standardized type, it is possible to maintain throughout Canada depots for the maintenance and repair of these appliances under the supervision of the department. There are now twelve such depots obviating long trips with consequent loss of time to those ex-members of the Forces who require adjustment or repair of the appliances which have been furnished to them.

"A progressive experimental branch is constantly engaged in seeking and devising new designs, and improving existing appliances.

"An outside nursing service is in operation for the purpose of tracing up such cases as have been discharged from the hospitals, with a view to determining whether home treatment which has been prescribed is being properly carried out, and that the conditions under which the patients are living are conducive to their improvement.

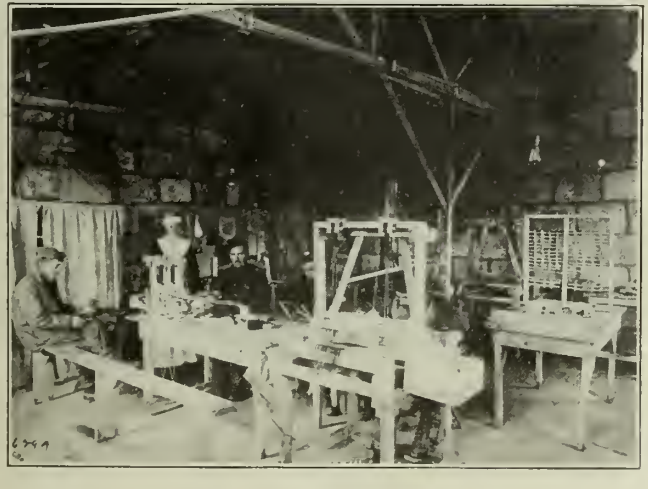
"The Medical Branch of the Department has had a gigantic work and has effectively grappled with it; and when the ex-soldier finally regains health and strength as far as it is possible for modern science to restore it, he will once more be in a position to resume responsible citizenship with all its duties and privileges."

A WELSH HOSPITAL FOR LIMBLESS MEN

A hospital to provide crippled soldiers and sailors with artificial limbs, to train them in their use, and to maintain the appliances in good working order as long as the men live, has been presented to the Welsh nation as a memorial to the men who died in the great war. As long as the war demands continue, the hospital will be reserved for soldiers and sailors, but as they cease to fill it, its services will be used for the benefit of men crippled by accidents—in mines, on docks or railroads, in steel works, iron works, factories, or on farms. It will thus be a permanent as well as a fitting memorial.

The hospital is named The Prince of Wales Hospital for Limbless Soldiers and Sailors, and is situated at Cardiff. It consists of three houses—the main building with accommodations for fifty-three men, an officers' house containing twelve beds, and a house for the staff. There are also workshops where the artificial limbs are made, and a garden which is useful as well as ornamental.

No man is discharged from the hospital until his limb is thoroughly satisfactory to him and he has learned to use it. The methods by which men are taught to walk are most ingenious.



Disabled Yanks display aptitude for the vocations taught them by Uncle Sam.

To quote from a booklet recently issued describing the hospital: "When a man first wears his new leg he is taken to the parade hall, a long room with terrazzo floor and two sets of parallel bars to suit men of different heights. The bars give him confidence, and at the far end are mirrors so that he can see for himself any error he may make in his first attempt to walk, and be shown by an instructor how to correct it.

"In the case of a man who has been so unfortunate as to lose both legs, the problem is naturally more difficult to solve, and a longer preliminary stage is necessary to restore his confidence in himself. Hitherto, these poor fellows, in order to get into their artificial legs, have had to depend on two people to lift and steady them. This difficulty has been overcome by a special appliance consisting of pulleys and tackle, and 'aerial transporter

Occupational therapy work-room in an army hospital.

crutch,' by which the man can lift himself from his wheel chair into his artificial limbs and allow just so much of his weight to rest upon them as he feels he can bear. Gradually, guided by his own sensations, he bears more and more weight until he feels he can stand, and finally begins to walk. The man who has lost only one leg, of course, makes more rapid progress, and from the parade hall with its parallel bars soon passes on to practise walking in the garden."

The garden, as an adjunct of a limb-fitting hospital, is unique. Instead of the usual graveled paths and smooth lanes it is laid out as a miniature "wild Wales," with rough uneven paths and steep climbs. This because practice in walking on smooth level ground has been found to be ill preparation for the actual conditions of the Welsh countryside.

The department for artificial arms is equipped for measuring the lifting or pushing power of appliances and the breaking strain of the materials used in their construction. One of the arms supplied is the invention of an armless collier, who has used it successfully for over twenty years. This man also superintends the men's training, which is carried on in the garden and in workshops, and is designed to fit them to go back into Welsh industries. There are pits for them to practice loading coarse sand and gravel, a miniature coal mine, and shops for steel workers, carpenters, glass blowers, and leather workers.

A statement in the above-mentioned booklet gives the number of artificial legs fitted and made at the hospital from May 7, 1917, to April 30, 1918, as 302 legs, including nine double amputation cases, and 125 arms, including one double amputation case.

The office of the Surgeon General announces that reports upon acitivities for educational service at fifteen Army general hospitals and one base hospital for September show that of 2,399 patients who received a surgeon's certificate of disability, 2,269 were able to resume their old occupations or were not in need of retraining, and only 130 were designated as unfit for their old occupation.

Health and Modern Industry

Conducted by Barrow B. Lyons
15 Fort Washington Avenue, New York City

SUCCESS IN HEALTH WORK IN INDUSTRY DEPENDS UPON PURPOSE

The attitude of laboring men and women toward much that is done to safeguard their health in industry is well expressed by a little incident that happened in a large New York factory.

The director of welfare was explaining to a group of workers the value of the proposed physical examinations which he was about to establish. "Yes," exclaimed one of the workers in contempt, standing up and pointing to a horse hitched to a truck outside. "Do you see that old plug out there? The driver just put a nice, warm blanket over his back, didn't he? Why did the driver put a nice, warm blanket over the old plug's back? Because he *loved* him? No, of course, not because he *loved* him. Why then? Because he wanted to *drive* him! What we working people want is for you to get off our backs, take the blinders off our eyes, and stop *driving* us. In fact we'd like to do a little driving ourselves."

The same idea underlies the resistance of the workers to the introduction of efficiency methods, and also explains the alarming tendency to reduce output. Many workers have lost confidence in a scheme of things which has so often made it possible for employers to exploit them, doling out for their "welfare" only so much as they felt would benefit the stockholders.

By bringing in the national and state health organizations as well as employers as representatives, the Massachusetts Committee on Health in Industry has taken a step which will help to broaden the *purpose* of health work in industry. Another step forward would be to include the representatives of labor upon such a committee, and not representatives selected by employers, but by the unions. They would report back to their people what was being done, and would act as a most powerful check upon selfish exploitation. They would also serve as a tremendous educational force, for the working people do not realize, any more than the employers yet realize, how much needs to be done, and can be done, in improving health conditions in industry.

A Public Health nurse is warmly greeted at the home of an employee of the West Boylston Mills, Easthampton, Mass. The nurse is employed by this company to help in the homes of the employees.

STATE-WIDE COOPERATION IN INDUSTRIAL HEALTH EDUCATION

By MRS. ANNA M. STAEBLER, R.N., Executive Secretary, Massachusetts Committee on Health in Industry, Boston, Mass.

The Massachusetts Committee on Health in Industry was organized in 1915, its chief object being the conservation of the health of workers by means of establishing nursing service and medical supervision in places of work. The personnel of the committee represents agencies interested in measures for improving the health of the people. Among the organizations represented are

Dental clinic, Hood Rubber Company, Watertown, Mass.

the State Department of Health, the Boston Tuberculosis Association, the Massachusetts Tuberculosis League, the National Organization for Public Health Nursing, Associated Industries of Massachusetts, Massachusetts Child Labor Committee, Massachusetts Consumers' League, and the State Board of Labor and Industries. The work of the committee is state-wide, although in the beginning the territory was confined to Greater Boston. The secretary is a registered nurse with public health training and several years of executive and organization experience.

At first the employers were interviewed individually, and told of the value of nursing service in the factory.

Results came slowly, and the first year was discouraging. The second year was more encouraging, and the work has developed steadily. There are approximately five times as many nurses employed by corporations in Massachusetts as there were in 1915.

Less time is spent now in individual interviews. Many requests come for the secretary to address Manufacturers' Committees. Boards of Trade, and Foremen's Meetings. By thus presenting the subject to a group of interested people time and effort are saved.

We always work with a local health agency. Cooperation is readily given by the Visiting Nurse Associations. Their help is valuable, especially in starting hourly nursing service in the small local plants. They recognize this opportunity of doing additional preventive nursing in their community. The industrial nurse deals with a group of people which hitherto had not been reached by the Visiting Nurse Association unless they were called to the homes to give bedside care. The associations are helpful also in obtaining proper introduction to local employers for the secretary, and often show their interest by accompanying her to the large plants. Many requests are received from industrial organizations for addresses on "Industrial Nursing" or "Health in Industry," to be given at their annual or monthly meetings.

The following plans for nursing service have been worked out by us to meet the needs of any sized factory in either a rural community or a large city.

Nurse on duty in first-aid room, West Boylston Mills, Easthampton, Mass.

(1) Full time nursing. This means that a nurse spends her entire time in the employ of one firm. She is in its pay and under its direction.

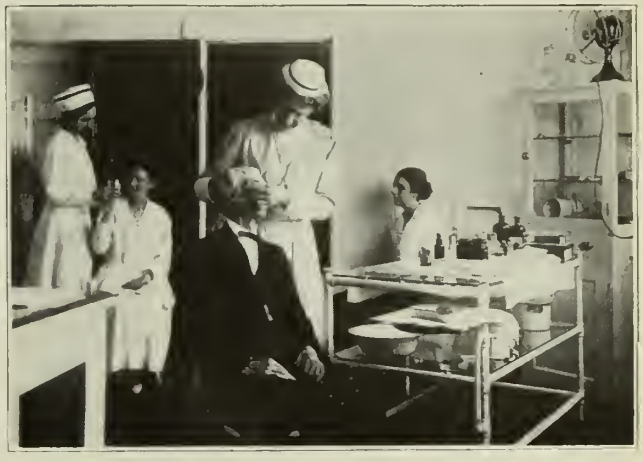
(2) Group service. This meets the needs of a few small or medium sized adjacent factories which share in the time and expense of one nurse. This service is usually arranged for in either of the following ways: (a) A Visiting Nurse Association sends one or more of its nurses on this duty. The firms pay the association and it, in turn, pays the nurse. (b) A committee of representatives from the various interested firms has entire charge of directing and paying the nurse.

Both forms of service have worked out well, although form (a) is more common.

(3) Hourly service. The Visiting Nurse Association sends its nurse to serve employers in their factories or in the homes of their people. The service in the factory is paid for on the hourly basis. In the home it is paid for either on the hourly basis or on the basis of a certain amount per visit. In factories where only first aid workers are employed, such service should be supervised and supplemented by a public health nurse, who visits the factory daily, although sometimes for only one hour.

In the various forms of industrial nursing which have been mentioned, the importance of follow-up visits to the homes of the employees should be impressed upon the employer. The nurse may always go where there is sickness or trouble and be assured of a welcome. This part of the service gives the nurse unlimited opportunities for teaching and demonstrating the principles of public health.

Our committee has presented this work to employers and the general public in various ways, through newspapers, trade journals, and circulars. We displayed an exhibit throughout the state, especially in the industrial towns and centers, for about three years. The exhibit



First aid room, Hood Rubber Company, Watertown, Mass.

consists of seventy-five uniformly mounted photographs, portraying various phases of industrial hygiene and betterment, including, of course, a group on nursing and medical service. Many of the pictures are comparative, showing good and bad working conditions.

Many noon health talks have been given in factories. Requests are received year after year from the same factories for these talks to be repeated. Occasionally they lead to an awakening on the part of the employer for nursing supervision of his employees. We are glad to help him whether he employs 100 or 1,000.

Education of the employer regarding the value of industrial nursing has resulted in a different attitude from that taken by the employer a few years ago. Five years ago an employer would say, "All we need here is a motherly, middle-aged woman." Now he will say, "We have decided to take on this service, and want to do it right. Will you send us a good nurse who knows her job? Furthermore, we want our medical department properly equipped. Can you help us on that?"

In our office we keep a list of carefully chosen nurses for industrial work. We give decided preference to those who have had training or good experience in public health nursing. Such training includes preventive nursing and social service. Prevention counts for economy, and this is what the employer wants. After a nurse is placed we hold no official connection, but are ready to help either nurse or employer in an advisory way.

Our office has quite naturally grown into a bureau on industrial nursing for the benefit of nurses and employers. Inquiries on various phases of industrial nursing and

other forms of betterment are received from coast to coast, and from the Gulf to Canada. Many nurses and others interested come for advice. In fact the office end of the work has grown so heavy that temporary assistance has been required, and we anticipate employing a permanent assistant largely for field work.

Our secretary was instrumental in 1915 in arousing interest which resulted in the organization of the New England Industrial Nurses' Association, the first organization of its kind. The membership has grown rapidly as nurses have appreciated the opportunity of meeting in order to discuss their problems, work out standards, and hear speakers of authority on subjects of help and educational value to them. At present there are nearly 200 members enrolled.

COMMITTEE ON HEALTH IN INDUSTRY ISSUES CIRCULAR

The following circular is reprinted as a suggestion to any one who may be interested in organizing similar committees in their own states. The titles of the committee members indicate the manner in which health agencies have cooperated in this work, representatives of government agencies, national and state health organizations, and employers all being represented. The text of the circular is a brief, well worded argument for more industrial nursing. The cover design of the little folder is reproduced on this page.

Does It Pay to Employ an Industrial Nurse?

Yes, because:—

1. She gives first aid in case of injury, thereby preventing infection and shortening the period of disability.
2. She cares for minor ailments, thereby enabling the employees to continue work.
3. She is on the alert to prevent the introduction and spread of contagious diseases through the plant.
4. She prevents illness by giving instruction in ways of keeping well.
5. She advises regarding correction of physical defects.
6. She visits and arranges for the care of those absent because of illness, thereby enabling an earlier return to work. She helps in case of family illness or trouble, thereby relieving the mind of the worried employee and enabling him to give his undivided attention to his work.
7. She teaches the rules of hygiene and sanitation. She advocates suitable precautions in the dangerous trades.
8. She is at all times a friend in need and interprets to the employee the plans of the employer for the establishment of various forms of industrial betterment.

Does the Industrial Nurse Act Under the Direction of a Physician?

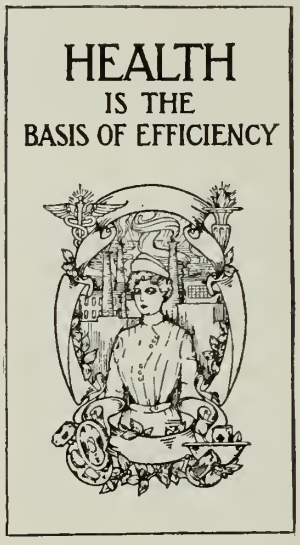
Yes, the physician, attending the plant daily or even only once a week, gives directions which a trained nurse can intelligently follow between his visits.

What Are the Qualifications of an Industrial Nurse?

She should have a personality which gains and holds confidence, quick and sound judgment, tact, and optimism. In addition to being a registered nurse, she should, if possible, have had a post-graduate course in Public Health Nursing. Such a course insures knowledge of the preventive side of her work, which counts so largely in keeping employees well and on their jobs.

How May Nursing Service Be Arranged for the Small Plant?

Arrangements may be satisfactorily made in most communities for a part time nursing service. Ask the committee for a plan to meet your needs.



Do Insurance Companies Help to Equip First Aid Rooms?

Yes; ask your insurance company what it will do in the way of equipment and reduction in your rating.

Is Factory Nursing Service a Business Proposition?

Yes; the average employee in your plant is absent more than eight days a year from sickness, accident, and other reasons, for which sickness is given as an excuse. A reduction of more than 40 per cent in this lost time can be attained through the work of the trained nurse in the factory and in the home of the employee. Take your pencil and figure it out; then let the committee hear from you.

Where Can a Good Industrial Nurse Be Obtained?

The Massachusetts Committee on Health in Industry, 3 Joy Street, Boston, can supply one. It has helped scores of employers to establish a nursing service which has never been discontinued, and in a number of cases has been enlarged. No fee is charged to either employer or nurse.

What Is the Massachusetts Committee on Health in Industry?

The Committee represents agencies interested in measures for the conservation of health. It was organized in 1915 and, as a result of its activity, the health of many thousands of employees is being supervised by nursing and medical care in the places of work and in the homes.

The Massachusetts Committee on Health in Industry of the Boston Association for the Relief and Control of Tuberculosis and of the Massachusetts Tuberculosis League consists of: James J. Minot, M.D., chairman; Miss Mary Beard, R.N., President National Organization for Public Health Nursing; Miss Bernice M. Cannon, Educational Director Wm. Filene's Sons Co.; Merrill E. Champion, M.D., Massachusetts State Department of Public Health; Edward M. Coffin, Associated Industries of Massachusetts; Richard K. Conant, Secretary Massachusetts Child Labor Committee; Eugene R. Kelley, M.D., Commissioner State Department of Public Health; Edward O. Otis, M.D., Tufts College Medical School; Mrs. Mabel G. Smith, Executive Secretary Cambridge Anti-Tuberculosis Association; Miss Anne H. Strong, R.N., Director School for Public Health Nursing, Simmons College; Miss Mary C. Wiggin, Executive Secretary Massachusetts Consumers' League; Arthur V. Woodworth, Advisory Committee, Boston School Committee; Wade Wright, M.D., Deputy Commissioner (Medical) State Board of Labor and Industries.

FOREIGN CORRESPONDENCE

POSITION OF BRITISH HOSPITALS

(From Our London Correspondent)

London, Dec. 15, 1919.

Reconstruction is the order of the day in Great Britain and the hospitals will be involved in the changes that are taking place in the practice of medicine. A crisis has almost been reached with regard to the hospitals in every part of the country. Practically all the institutions of this kind are dependent on charity for support and even before the war many of them had considerable difficulty in making both ends meet. The war, of course, threw a tremendous strain on them, viewed from every angle, and perhaps especially from the financial aspect. Those which formerly were fairly prosperous are now in straits for money, while those which relied almost wholly on the public for maintenance are in a very bad way indeed. When St. Bartholomew's Hospital, the richest and oldest in the Kingdom, with an endowment derived from land and house property of more than $500,000 a year, is compelled to close the convalescent home, to run into debt at the bank, and to issue a public appeal that if a large sum is not raised forthwith, that further and extensive economies will have to be practised, then it is clearly evident that those institutions which have small or no incomes, must be in a very much worse position.

Middlesex Hospital has sent out an appeal for $1,000,000. The first public function that the Prince of Wales undertook after his return from America was to attend a dinner to solicit pecuniary aid for voluntary medical hospitals, in general, and for the Middlesex Hospital, in particular. A few evenings later he attended a dinner held to raise funds for another London Hospital, the Great Northern, and on the following evening Prince Arthur of Connaught presided at a dinner to plead for assistance for King's College Hospital. And so it goes. The hospital accommodations throughout England, Wales, and Scotland are inadequate and steady means of support is lacking.

To give an example of the situation of the big London hospital at the present time, the following account of the scope of the work of King's College Hospital and its financial plight will suffice. It represents the situation of them all in a greater or less degree. More than 1,000,000 people reside in the district served by King's College Hospital, and the extent to which they take advantage of the institution is shown by the fact that during the war period 115,199 out-patients and 12,692 in-patients passed through the civil side. In addition, one part of the buildings was devoted exclusively to wounded soldiers, and 30,923 officers and men were treated there.

At the present time the average number of weekly attendances in the out-patient department reaches 3,500, while the dangers of the streets and other accidents lead to a daily average of from forty-five to fifty casualties which receive attention. It goes without saying that to carry on efficiently such work calls for a good deal of money. It is said to cost more than ten dollars to run the hospital for a quarter of an hour. There are 900 cases awaiting admission and the wards vacated recently by military patients cannot be used for want of funds. Other activities incident to a great hospital are hampered by want by funds. The expenditure amounts annually to $400,000 while the income does not exceed $100,000. This leaves a balance of $300,000 to be raised to meet the outgoings. In addition to the need for raising an income of $300,000, King's College Hospital has incurred a building debt of $250,000. The state of affairs existing at King's College Hospital is typical of similar institutions in all parts of the land. Some are better off, but more are worse off.

Remedies for Present Conditions

But before entering upon the very wide and difficult subject, the remedy for the situation, it may be well to emphasize that the hospitals of Great Britain are notoriously inadequate for the accommodation of the applicants. For the most part they were built very many years ago with no regard for the needs of an increasing population. The consequence is that in some districts the accommodation is more than ample while in other districts, and this is usually the case, the accommodation is not nearly sufficient. The masses of Great Britain appear to have changed their attitude towards the hospitals. At one time the ordinary British workman and members of the working class generally were very distrustful, not to say suspicious of hospitals. They regarded them as only slightly better than the workhouses which they abhorred, and kept out of them as much as possible. Now they have made a complete *volte-face* and clamor for admittance. The truth is, they have come to realize that all that modern science can do for them in the way of diagnosis and treatment is done in the general hospitals. Then it must not only be taken into account that hospital accommodations are extremely inadequate and that hospitals are very frequently most inconveniently situated, but also that many more persons are desirous of hospital treatment than was formerly the case. There is a long waiting list at every hospital. What is to be done, if hospitals are inadequate for the purpose for which they were established and if even those which are in existence have great difficulty in raising funds to carry on? At first thought it appears that the reformation and reconstruction of the hospitals, or rather, hospital system, are among the main reasons for the creation of a Ministry of Health, and the idea is at once jumped at that British hospitals shall be state controlled. On second thought, however, this view of the matter is recognized to require

much revision; "make haste slowly" in this direction is the motto of many who have made a special study of the subject.

In the first instance it is quite obvious that the members of the Ministry of Health have their hands more than full. They have pledged themselves to solve the housing problem and this question alone will occupy their earnest attention for a long time to come. They have no wish to be worried with another vast problem until some decision has been come to which can be carried into effect with regard to the provision of dwelling houses. Moreover, there is no general conviction that state controlled hospitals are desirable or are likely to meet with the approval of the British public. In fact, sentiment and tradition are deeply imbedded in the breast of the Britisher. Conservatism is bred in him. Prince Arthur of Connaught, in his speech at the King's College Hospital dinner, referred to previously, exactly expressed the opinions of the "man in the street" when he said that "supported by voluntary contributions" has been for generations the proud boast of Great Britain, and it would be a bad day, not only for the home country, but for the whole of the Empire, were that superscription on many of our great hospitals relegated to the scrap heap.

General Hospital System Inadequate

Sir Henry Burdett, editor of the *Hospital*, is one of the strongest supporters of the voluntary system and deprecates the cry of some whom he terms irresponsible that the voluntary system is doomed and suggesting that the voluntary hospitals must be put on the rates. He declares that such utterances will not bear examination on the facts and are contrary to the truth. Such statements in the present juncture are mischievous because they deter people from giving money to the hospitals or leaving it to them by will. He thinks, therefore, that a definite statement from the Government to the effect that the state has no intention, or at any rate, any intention in existing circumstances, of taking steps for the nationalization of hospitals, may be expected, seeing that a falling off of the revenue to the voluntary hospitals at the present time would seriously threaten the national finances. But although nationalization of hospitals is far off, Sir George Newman, the chief of the Medical Department of the Ministry of Health, rightly says that it is obvious that a complete and satisfactory hospital system cannot be provided for many years. But he qualifies this statement with the pertinent remark that a beginning may be made. He points out that there is no general hospital system in Great Britain. Of course there are hospitals, and so far as the poor law institutions and the isolation hospitals are concerned, there is organization. But when it is a question of the general hospital system, it is unorganized and insufficient. The number of beds in the general hospitals per population is entirely inadequate, as are the beds for pulmonary and surgical tuberculosis, and the number of beds for early mental cases and for maternity cases.

Coordination, that is, unity of command, won the war for the allies and provided an object lesson for hospital management and for mobilizing the scientific force of the profession. Cannot methods of coordination be applied to the voluntary hospital system, rendering it more elastic and workable, without resorting to such a drastic reform as state control? By proceedings of this character the good ship "Voluntary Hospitals" might be brought safely into port. It is somewhat curious that hardly a voice has been raised in favor of introducing the American system of pay hospitals into this country. The hospitals of Great Britain have always been for poor people and the working classes, while the great middle class had nowhere to go for skilled treatment. Therefore, persons with a small salary, as clerks, shop attendants, and those of a higher social scale, most of whom earned less than the competent artisan, were compelled to go for treatment to medical practitioners possessed of far less knowledge and skill than the physicians and surgeons who gave their services to the hospitals. To the unprejudiced it appears that the pay hospital system offers a solution of the problem in Great Britain, although no doubt many obstacles would have to be overcome.

In future letters, various phases of the hospital question in Great Britain will be presented and discussed. With regard to hospitals here, there is plenty to write about at the present time.

WANTS SANITARY SURVEY OF ENGLAND

An appeal for a sanitary survey of England, with a view to mapping out the land for the purpose of establishing local authorities which would direct all local energies pertaining to health, was made by Sir Napier Burnett in an address on hospital organization and management delivered at the Royal Infirmary. A similar survey, affording important data, had been carried out by the North-Eastern Hospitals Association in the north of England, in an area of about 4,000 square miles. The shortage of hospital beds had an important relation to the question of national economy by way of unemployment and lessened production, and was also a casual factor in the general social unrest. In reference to hospital finance, Sir Napier Burnett expressed the hope that soon King Edward's hospital fund, or some government subsidy, would extend its operations to Provincial hospitals, joining with the aid given some coordinated system of central control. Serious consideration should be given to the need of hospital accommodation for middle-class patients who were able to pay one, two, or three guineas a week for a bed in a general hospital.

ANTI-TUBERCULOSIS CAMPAIGN IN FRANCE

France is rapidly mobilizing her resources for a great post-war campaign against tuberculosis. During the five years of war, the disease made great inroads, particularly in the devastated regions, and the beginning of a serious campaign was made by the American Red Cross, while the war was still on. The campaign has enlarged gradually, the French government has taken it up, and now the Rockefeller Foundation has decided to extend its work along this line, particularly in the Chateau Thierry and St. Quentin areas, where more than half the old population has returned to the ruined villages.

The same methods adopted by the Foundation in America will be used in the fight, and close cooperation maintained with the American Red Cross and French relief agencies. The Foundation is at present furnishing the funds for the establishment of three centers, and will provide French doctors for them. French nurses, trained by the Red Cross will work with them.

In laying his plan before the Red Cross, Dr. Bernard L. Wyatt of the Foundation stated that by establishing the work in the larger cities first, he will be able to do more good at the start with a limited organization. Later, lectures and posters, demonstrations, and motion pictures will be used in an educational campaign in the small towns. More than forty French girls who have already had nurse's training have volunteered to assist.

THE MODERN HOSPITAL

A Monthly Journal Devoted to the Building, Equipment, and Administration of Hospitals, Sanatoriums, and Allied Institutions, and to Their Medical, Surgical and Nursing Services

Vol. XIV *March, 1920* No. 3

A BRIEF REVIEW OF HOSPITAL STANDARDIZATION IN 1919

By JOHN F. BRESNAHAN, M.D., Member of the Staff, American College of Surgeons, Chicago

THE practice of medicine is in a fluid state. The profession of medicine with unprecedented speed is coming into its own. Comparable with the scientific advance which medicine has made in recent years, comes now an awakening on the part of the public as to the value of medicine. Further, thoughtful people, as never before, believe that they have a right to be well; and in seeking the means through which they may maintain this right, they turn naturally to the hospitals.

The Constitution of the United States, when it pledged us life, liberty and happiness, implied the right to health. The people of this country are beginning to pay more attention to the matter of health. The medical and allied professions, and the hospital folk, have been thinking together on the subject. The result has been action —a country-wide movement for the betterment of hospital service to patients. This cooperative effort is known as "Hospital Standardization." The name signifies a Minimum Standard; there is no desire to make one institution like another. Hospital Standardization is today a primary issue in the hospital world.

On the other hand, the hospitals,—that is, the superintendents, staffs, nurses, and trustees, are in dead earnest to do their parts with credit. Their combined effort is popularly known as hospital standardization. In this connection the following editorial paragraph recently appeared in THE MODERN HOSPITAL:

"The superintendent, the staff, and the trustees are willing and even eager to make their maximum effort for any patient in the hospital. That fact is true in almost every hospital on this continent. But do the superintendent, the staff, and the trustees coordinate their efforts so that every patient really gets the benefit of their combined energy and intelligence? It is just this question which the American College of Surgeons asks. The College also answers the question by presenting its Minimum Standard for adoption. The 'Minimum Standard' penetrates through the complexities and reaches the heart of the matter. It is undebatable and is, probably, the most vital document which has come to hospitals in many years. Any hospital which does not meet that standard today has work to do."

The remarkable feature of the year's progress is the spirit with which the hospitals are active in the work of standardization. Hospitals want to know whether or not the patient receives proper care and treatment. A brief review of the work done during the past year follows:

Progress in the Field

During 1919 the American College of Surgeons completed its survey of hospitals of 100 or more beds capacity in the United States and Canada. Besides the collection of data by questionnaire, members of the College staff visited these hospitals in order to make clear the requirements of the Minimum Standard. As a result of these visits it was found that on October 1, 1919, out

of a total of 671 hospitals in the United States and Canada, 198 met the Minimum Standard.

On October 24, 1919, the College made its report to Fellows of the College in connection with the Ninth meeting of the Clinical Congress of the College, in New York City, and presented the accompanying table (Table I). The headings of this table will be better understood by comparing them with the requirements outlined in the Minimum Standard which follows later in the text.

In addition to its other activities, the College arranged a number of hospital conferences throughout the western half of the United States and Canada. The conferences were designed to supplement the work of the hospital visitors and included special meetings of the County Medical Societies, Chambers of Commerce, Business Men's Associations, and Canadian Clubs.

During the year bulletins, Volume IV, Nos. 1 and 2, were published. These bulletins contained a detailed explanation of the Minimum Standard with special reference to the meaning and use of case records and forms suggested for the keeping of case records in a simple, convenient, and adequate manner, respectively. Some 54,000 of these publications were distributed.

The following is a statement of the Minimum Standard:

"(1) That physicians and surgeons privileged to practice in the hospital be organized as a definite group or staff. Such organization has nothing to do with the question as to whether the hospital is 'open' or 'closed,' nor need it affect the various existing types of staff organization. The word 'staff' is here defined as the group of doctors who practice in the hospital, inclusive of all groups such as the 'regular staff,' the 'visiting staff,' and the 'associate staff.'

"(2) That membership upon the staff be restricted to physicians and surgeons who are (a) competent in their respective fields, and (b) worthy in character and in matters of professional ethics; that in this latter connection the practice of the division of fees, under any guise whatever, be prohibited.

"(3) That the staff initiate and, with the approval of the governing board of the hospital, adopt rules, regulations, and policies governing the professional work of the hospital; that these rules, regulations, and policies specifically provide:

"(a) That staff meetings be held at least once each month. (In large hospitals the departments may choose to meet separately.)

"(b) That the staff review and analyze at regular intervals the clinical experience of the staff in the various departments of the hospital, such as medicine, surgery, and obstetrics; the clinical records of patients, free and pay, to be the basis for such review and analyses.

"(4) That accurate and complete case records be written for all patients and filed in an accessible manner in the hospital, a complete case record being one, except in an emergency, which includes the personal history; the physical examination, with clinical, pathological, and x-ray findings when indicated; the working diagnosis; the treatment, medical and surgical; the medical progress; the condition on discharge with final diagnosis; and, in case of death, the autopsy findings when available.

"(5) That clinical laboratory facilities be avail-

TABLE I—AS MEASURED BY MINIMUM STANDARD—STAFF MEETINGS, CASE RECORDS, AND CLINICAL LABORATORIES IN GENERAL HOSPITALS OF 100 OR MORE BEDS

1. IN UNITED STATES

Groups by No. of beds	No. hospitals in each group	Staff meetings each month	Personal history	Phys. Exam.	Working Diag.	Lab. Findings	Treatment or Operation	Progress Note	Clinical Laboratories: Final Diag.	Path.	X-Ray	No. hospitals meeting Min. Stand.
100–149	282	91	131	117	112	181	178	112	194	170	174	66
150–199	133	49	67	56	54	95	93	56	97	96	95	37
200–249	65	27	30	31	27	40	40	27	40	40	40	22
250–299	57	33	32	31	28	42	41	28	44	44	42	24
300–349	24	13	13	12	12	18	18	14	20	21	20	8
350–399	11	6	6	6	5	6	6	5	6	6	6	3
400 or more	45	34	39	39	35	41	41	37	41	41	41	30
Totals	617	253	318	292	273	423	417	279	442	418	418	190

2. IN DOMINION OF CANADA

100–149	26	3	4	7	4	6	6	5	7	8	8	2
150–199	7	1	2	2	1	2	2	0	2	3	3	0
200–249	6	1	2	2	2	2	3	2	5	3	3	1
250–299	3	1	2	2	1	3	3	1	3	3	3	1
300–349	2	1	0	1	0	1	1	0	1	1	1	0
350–399	5	1	2	2	1	2	2	1	2	2	2	1
400 or more	5	3	3	3	3	4	4	3	4	4	4	3
Totals	54	11	15	19	12	20	21	12	24	24	24	8

able for the study, diagnosis, and treatment of patients, these facilities to include at least chemical, bacteriological, serological, histological, radiographic, and fluoroscopic service in charge of trained technicians."

In consideration of the success of its work among the larger institutions, the Regents of the College decided to extend its program of hospital

In its architectural conception the Carson Peck Memorial Hospital, Brooklyn, N. Y., is one of the outstanding hospitals of 1919. Its bed capacity provides for eighty adult patients and twenty children. Construction was begun in 1917 and completed late in 1918. The hospital has been in operation since the beginning of 1919. Ludlow & Peabody, New York City, architects.

standardization so it will be made to include general hospitals with capacities of fifty or more beds.

American Medical Association

In the American Medical Association the matter of hospital standardization is in charge of the Council on Medical Education. In the report of the Council, made on June 9, 1919, an exhaustive report was made of the survey of hospitals in the United States which had been made by the Council during the preceding year. This report showed that in October, 1918, there were in the United States 6,440 hospitals having ten or more beds, or a total capacity of 758,442 beds.

It was found that 5,342 hospitals, or 82.6 per cent, did not use interns; and that 1,126 hospitals, or 17.4 per cent, were using or desired to have interns. This latter figure, however, included the larger institutions and is comprised of 34.5 per cent of the total bed capacity. Of the 1,126 hospitals using interns, 801, in replies to specific questions, furnished the following figures: Eighty per cent are general hospitals; 72.8 per cent have expert anesthetists; 67.5 per cent have expert dietitians; 76 per cent have fully equipped x-ray laboratories; 20.8 per cent are equipped with electro-cardiographic apparatus.

The tabulations disclosed the interesting fact that from 88 per cent to 92 per cent of hospitals having interns keep records; that 72.8 per cent keep records of autopsy findings; that 69.1 per cent keep a special record showing final results; and that 57.8 per cent keep indexes of their patients by name and by diagnoses. These indexes extend over varying periods.

Sixty-one and nine-tenths per cent of the hospitals having interns obtain current medical periodicals and 46.3 per cent are supplied with

medical texts and reference books. It is pointed out that since only 17.4 per cent of all hospitals seek or make use of interns, the large majority would not be included in an investigation from the standpoint of an intern's training.

The Council presented a tentative schedule of essentials in a hospital for the satisfactory training of interns as follows:

I.—The Staff of the Hospital

(1) There must be an organized staff.

(2) Staff physicians should be men of unquestionable integrity both professionally and morally.

(3) They should be proficient in the special fields in which they work in the hospital.

(4) They should give personal attention to the patient under their charge, some member of each department visiting the hospital every day, and every member of the staff should visit the hospital at least once each week.

(5) They should assume an obligation to direct and supervise the training of the interns admitted to the staff.

(6) (a) A clinical conference of the attending staff and the interns should be organized and held at frequent intervals, at least monthly, at which new cases and the problems they present should be discussed. (b) There should also be clinical and pathologic conferences, for the attending staff and interns where the antemortem clinical picture is presented and compared with the necropsy findings. (c) There are also hospital medical societies at which staff members and interns are encouraged to present cases which have been worked up from the clinical point of view and on which they have read up the available literature.

II.—Equipment of the Hospital

(1) A pathologic department equipped with facilities for necropsies, this work to be in charge of an expert, who may be a member of the staff skilled in such work.

(2) One or more small clinical laboratories for work by the interns in direct connection with the wards for the routine examination of blood, urine, stools, and gastric contents. Within the hospital there should be also a clinical laboratory in charge of an expert who shall be responsible for the more technical, chemical, bacteriologic, and serologic work, and examinations.

(3) A Roentgen-ray department in charge of an expert roentgenologist and equipped to do roentgenographic, fluoroscopic, and therapeutic work.

(4) A working medical library containing a fair supply of modern standard text and reference books, the better medical journals, and suitable charts and models. Bound volumes of the better medical journals for recent years constitute a very satisfactory part of a hospital medical library.

(5) Adequate provision for the housing and recreation of interns.

III.—Histories and Records

(1) Complete histories should be taken, giving the patient's complaint, physical examination at time of admission to hospital, laboratory findings, description of operation, if any, daily record of case, condition and date when discharged from the hospital, end-results, and, in case of death, necropsy findings if necropsy is performed.

A noteworthy institution among those constructed in 1919 is the New Jersey Orthopedic Hospital, which is being completed for occupancy in 1920, thus terminating a long delay in the erection of the building. The delay was encountered as a consequence of the war, during the period when materials and labor were not obtainable. York & Sawyer, New York City, architects.

(2) Histories should show, by signatures or initials, the persons writing them or parts of them. This will show not only the work of the intern, but also the supervision over it by members of the attending staff. In hospitals where senior medical students act as clinical clerks, it should be the duty of the interns to supervise and correct the students' histories and records.

(3) The records should be carefully kept and placed in charge of a trained historian. This will not only guarantee better records and better care from the patient's

(5) *Roentgen-Ray Work:*—The intern should receive a reasonable amount of instruction in the therapeutics of the roentgen-ray and also in the interpretation of roentgen-ray plates and fluoroscopic findings by an expert roentgenologist or a qualified member of the hospital staff.

(6) *Anesthetics:*—The intern should obtain experience in the administering of various kinds of anesthetics under expert supervision.

(7) *Dietetics:*—The intern should be given instruction by a trained dietitian, or qualified staff member, in the

This new institution, the University Hospital, at Oklahoma City, Okla., affords an additional 200 hospital beds in its community. It is a general hospital and was opened in 1919. The cost exceeded $200,000. Jewell Hicks, Oklahoma City, Okla., architect.

point of view, but also will actually protect the hospital itself, especially in certain medical legal cases.

(4) The records should include an alphabetical index of the patients, another arranged by diagnoses, and, for surgical cases, one arranged from the standpoint of the regional part involved. For the alphabetical index, cards might be used, which should show the end-results, sometimes referred to as the "summary" of the case.

IV.—The Work of the Intern

(1) The hospital should have a set of printed rules and regulations defining the rights, duties, and privileges of the interns, which should be furnished to each intern or posted in a conspicuous place.

(2) All of the work of the interns should be under the careful supervision of staff physicians. This is essential, not only to correct errors—such as may be expected from their lack of experience—and thereby protect the patient, but also that the intern may receive instruction through his errors and be able to avoid their repetition.

(3) The writing of histories in connection with the examinations of patients. (See III, 2, above.)

(4) *Clinical Laboratory Work:*—This work might well be divided into two portions, the first to be obtained in the ward laboratory work in connection with the examination and care of patients, the other portion to be obtained in the general laboratory in assisting the expert pathologist in the more technical, chemical, bacteriologic, and serologic work. (See II, 2.)

feeding of both infants and adults as required in various diseases or conditions.

(8) *Maternity Work:*—Before finishing his intern service, the intern should have had experience under supervision not only in the delivery of normal maternity patients but also in the more common abnormal cases.

(9) *Necropsies:*—The intern should obtain an experience in making necropsies either under the direction of or by assisting the hospital pathologist.

(10) In his progress through his junior and senior service, the intern should assume, under careful supervision, an increasing responsibility in the diagnoses, daily observation, care and treatment of the patients under his service. This experience and responsibility should be in connection with as large a variety of cases as possible, and include at least such cases as are commonly met with by the average practitioner of medicine.

(11) The intern should obtain a practical experience in the applying of surgical dressings in connection with the care and treatment of patients. As he progresses in his surgical intern service he should be authorized, under careful supervision, to perform not only minor surgical operations, but also some of the more common major operations. In major operations, the attending surgeon should stand by, or assist the intern. Experience in connection with accident service is, likewise, highly desirable.

(12) The number of patients assigned to each intern and the routine work required of him should not demand more than eight (at most, ten) hours daily. He must

have ample time to study and read up on his cases, both in the interest of his patients and for his own educational progress.

(13) The intern service should extend through at least twelve months, and may to great advantage be continued through eighteen months or two years.

V.—Miscellaneous

(1) Prominent educators are about equally divided in favoring the rotating and non-rotating services for interns. It is evident, however, that each may represent an extreme which should be avoided. If the intern's work is limited to either medical or surgical services, the intern should be encouraged to remain an additional year, so as to complete both services. Special hospitals, such as those for diseases of the eye, ear, nose, and throat, should preferably select their interns from those who have already completed a service in a general hospital.

(2) When the internship is being taken as a prerequisite to graduation, the evaluation and grading of his hospital work should be done by the medical school from which he is to secure his M.D. degree, either by direct conference with his resident superior, or indirectly, through a series of reports furnished for this purpose by the hospital.

(3) The hospital should have an average of not less than twenty-five patients to be eligible to train an intern. To provide for a rotating service in laboratory, medicine, and surgery, therefore, a hospital should have at least seventy-five beds and three interns.

(4) In hospitals having four or more interns, they should preferably begin their work at different times and pass through junior and senior service. The services are sometimes further subdivided into first and second junior and first and second senior service. Such an arrangement keeps in the hospital a constant supply of experienced interns. This is not only to the interest of the patient, but also enables senior interns to instruct juniors.

(5) In hospitals having 100 beds or more, in addition to the interns, there should be a full-time resident physician, who has had at least one year's intern experience. It shall be his duty to supervise the work of the interns, particularly at times when no staff physicians are in attendance at the hospital. Even hospitals having less than 100 beds (public ward patients) will furnish their interns with a more valuable training if a resident physician is employed to superintend the professional work in the hospital.

VI.—Object

It is believed that an internship obtained under the provisions herein made will prove to be for the best interests not only of the intern and of the hospital, but also of the patients and of the public at large.

Catholic Hospital Association

During 1919 the Catholic Hospital Association has been active in fostering the principles of hospital standardization among its members. At the formation of the conference on hospital service, the attitude of the Catholic Hospital Association was defined as follows:

"The principle of the Catholic Hospital Association in the problem of so-termed hospital standardization is evolved from the fundamental rights of the individual. Briefly stated, our principle is as follows: Once the hospital assumes the responsibility of the patient's care, the patient has the right to the most scientific and skillful service that is available. On this principle the Catholic Hospital Association was founded, by it we have been constantly guided, and on it we must ever firmly stand.

"In other words, we hold that adequate service to the patient is an obligation strictly imposed upon every hospital. Obviously the fundamental essential for meeting this obligation is such organization as is consistent with the work. Hence the organization of the hospital must be based and developed upon the requirements involved in the successful diagnosis and treatment of the patient, these requirements being viewed in the light of progress in the medical sciences.

"Necessarily, therefore, this principle postulates, first, diagnostic and therapeutic departments that are ample in number and adequately equipped; secondly, staffs whose personnel is ethical, scientific, and skillful, all harmoniously cooperating for the best interests of the patient, the hospital itself, the community, and for medical work in general.

"Among the various factors that we are constantly emphasizing for the attainment of this end are the following:

"(1) A thoroughly organized department of records. We hold that this department is fundamental; that without it an efficient and progressive hospital is not possible. Further, we maintain that, for the department of records to be able to render fullest service, there must be fixed periodic meetings of the staff, with attendance compulsory, at which records and conditions are frankly discussed, and means for betterment suggested. A follow-up system should be included as an essential part of this department.

"(2) Postmortem examinations. We hold that such examinations, together with the follow-up system of records, are necessary both for learning the truth with regard to results and for adequate progress in the hospital's work and in medical practice in general.

"In the work of standardizing hospitals we firmly believe in the principle of construction before classification. That is, viewed in the light of conditions, we hold that the present work should consist of educating, encouraging, and aiding hospitals. The reason for this principle is that many hospitals, particularly hospitals conducted by Sisters, have been, and are for the most part now, laboring at a disadvantage. Together with narrowly limited finances, Sisters' hospitals have commonly lacked the advantage of proper

guidance and cooperation on the part of their staffs.

"In many instances Sisters' hospitals have been the victims of incompetent staffs, staffs whose dominating factors have been selfishness, jealousy, and individual endeavors for control. Doctors have thought more of their own professional advancement and financial emolument than of the hospital's interests. Under such conditions effectual organization, with resultant suitable standards, has not been possible.

"To educate, encourage and aid; to eradicate such defects and evils, which are so omnipresent, is the purpose of our Association, a purpose in which we are firmly resolved to persist.

"As a practical contribution to hospital organization we have begun the development of summer schools for laboratory technicians, in order that Sisters and other women may be available to help supply the demand in this regard.

"To briefly summarize, all the work of the Catholic Hospital Association is done in view of the best interests of the patient. We hold that this is the logical foundation on which to build, and on which the adequate betterment of every phase of the hospital's function should be developed. We are convinced that, as a matter of justice, hospitals should be first shown the way and given ample time to meet requirements before they are publicly classified. As far as Sisters' hospitals are concerned, this conviction is based upon the common knowledge of the disadvantages under which many of their hospitals have been and are still laboring, also upon investigations and correspondence in which we are assured that the hospital Sisters are most eager to cooperate and to do all within their power to attain the scientific standard that is desired.

"In conclusion, any organization that stands for the principle by which the Catholic Hospital Association is guided, may be assured of our sincere cooperation in working for the betterment of hospital service, a problem whose solution is obviously basic for the well-being of suffering mankind."

Following out the principles thus outlined, the Right Reverend Charles B. Moulinier, president of the Association, pledged the support of the Association at the meeting on standardization at the Clinical Congress held in New York, October 24, 1919, as follows:

"I am just going to say in closing, I pledge to you with my personal honor and all the official capacity I have, I pledge to the American College of Surgeons,—that the Catholic Hospital Association, with whatever force and power it has, the hierarchy of the Catholic Church, the clergy of the Catholic Church, and that great body of twenty or thirty thousand Sisters working in Catholic hospitals are going to cooperate with you fully, to the highest point ultimately. Just be patient a little here or there and you will be satisfied, not to say delighted, with the kind of cooperation you will get from the Sisterhoods, from all this Catholic body."

State Boards of Examination

The various state and county medical societies and boards of licensure, especially those of Pennsylvania and New Jersey, have taken active and purposeful interest in standardization. In Pennsylvania the work of Dr. John M. Baldy in the field of hospital improvement is a notable achievement. Largely as a result of his efforts, the Bureau of Medical Education and Licensure of Pennsylvania now requires as preliminary to a medical license, an internship of one year's duration. Further, in order to insure the proper facilities for intern training, the Board has examined the various hospitals in the state and grouped them into three general classes known as "A," "B," and "Special Hospitals."

To be listed as a class "A" institution, a hospital must show satisfactory evidence of complying reasonably well with the following requirements, having:

(a) A staff whose members are giving efficient clinical and laboratory instruction to the interns.

(b) A system of record keeping in all departments efficiently conducted.

(c) An x-ray department adequately equipped, officered, and managed.

(d) Pathological and clinical laboratories which are adequately equipped, officered, and managed.

(e) An anesthetic department properly established and maintained.

(f) An obstetrical department with ample facilities for instruction under supervision.

(g) All other departments that are essential to a complete medical training.

The class "B" institutions are those which have been found to possess sufficient clinical facilities and the possibility of furnishing an adequate internship to meet the requirements of law, but which have not as yet attained the high degree of excellence that should characterize class "A" hospitals.

The "Special Hospitals" are those which are capable of giving a competent and valuable training in certain lines which they cover. In view of their limited field, such hospitals cannot give such a well-rounded training as is contemplated by

law. The service of these hospitals is available and valuable to those who have already completed their general internship, as well as to those who have received appointments in general hospitals and who are waiting their turn to enter upon such general service.

A credit of these months on the general intern service is allowed for training in such hospitals, provided this service be not less than three months in time.

One of the attractive hospitals of the year is the Englewood Isolation Hospital, at Bridgeport, Conn. It is a contagious disease hospital, with a bed capacity of 75. Cross & Cross, New York City, architects.

The State Board of Medical Examiners of New Jersey in 1914 appointed a committee on standardization and are following a program similar to that previously inaugurated in the state of Pennsylvania.

Progress in Canada

In Canada, in spite of the inroads on hospital personnel made by the war, standardization is a live subject. At the meeting of the convention of the Hospitals of British Columbia, July 11, 1919, a committee on standardization was formed as outlined in the following resolution:

"That a committee on standardization, of nine members, be appointed, with the secretary of the Provincial Board of Health as honorary convener and the president of the Association as member, *ex-officio*.

"That the committee consist of three sub-committees: (1) business, (2) medical, and (3) nursing.

"That they be instructed to gather all data possible on the work of standardization now being carried on throughout the continent.

"That the committee keep the hospitals of the province fully posted as to advances made and suggested.

"That the committee advise by letter, or by official visits at no cost to the hospital, the consideration of such changes in the management of the particular hospital as will ensure the adoption of measures that will place the different institutions in accord with the general principles being recommended by the International Hospital Association."

American Conference on Hospital Service

The organization of this conference took place at the instance of the American Medical Association in Cincinnati on September 11, 1919. The constitution of the body states that, "It shall be composed of two duly accredited delegates hereinafter called delegates, from each of the following named organizations: American Association of Industrial Physicians and Surgeons, American Association of Hospital Social Service Workers, American College of Surgeons, American Hospital Association, American Medical Association, American Nurses' Association, Association of American Medical Colleges, Catholic Hospital Association of the United States and Canada, Federation of State Medical Board of the United States, International Compensation Board, Medical Department of the United States Army, Medical Department of the United States Navy, National League of Nursing Education, National Organization for Public Health Nursing, and the United States Public Health Service, and of two representatives of any other organization that may hereinafter be elected by a two-thirds vote of the whole number of delegates, which shall be recorded by means of signed ballots."

The new Children's Hospital of the University of Iowa, at Iowa City, has had an unique and interesting beginning. It forms a unit in the system of the University medical extension and research work. The illustration pictures the new building recently opened to accommodate the pediatric and orthopedic cases of children under sixteen years of age, for whom treatment is provided by the state under the statute known as the Perkins law. More than three thousand such cases have been handled under this law, and so urgent was the need of a special hospital that the state found it necessary to take these cases out of the other state hospitals. Thus came about the establishment of the Children's Hospital. The new building has a bed capacity of 150. Proudfoot, Bird & Rawson, Des Moines, Ia., architects.

The object of the organization as stated "shall be the betterment of hospital service in the United States of America and the Dominion of Canada."

The activities of this Conference are for the present limited to four different phases of the hospital problem, namely, the Intern Problem, the Nursing Problem, Standardization of Hospital Service, and the Medical Aspects of Social Insurance.

Certain organizations, because of their known interests, resources, and previous accomplishments, were invited to nominate the chairmen of the various committees. Therefore, a representative of the American Medical Association will act as chairman of the committee on the Intern Problem; of the American College of Surgeons, as chairman of the committee on the Standardization of Hospital Service; of the American Nurses' Association, as chairman of the committee on Nursing; and of the American Association of Industrial Physicians and Surgeons, as chairman of the committee on the Medical Aspects of Social Insurance. Any organization especially interested in any one of these particular subjects will be entitled to membership on the committee having that subject in hand, and it is the desire of the conference that such members of the conference as are interested in the work of any particular committee will become members of that committee.

American Protestant Hospital Association

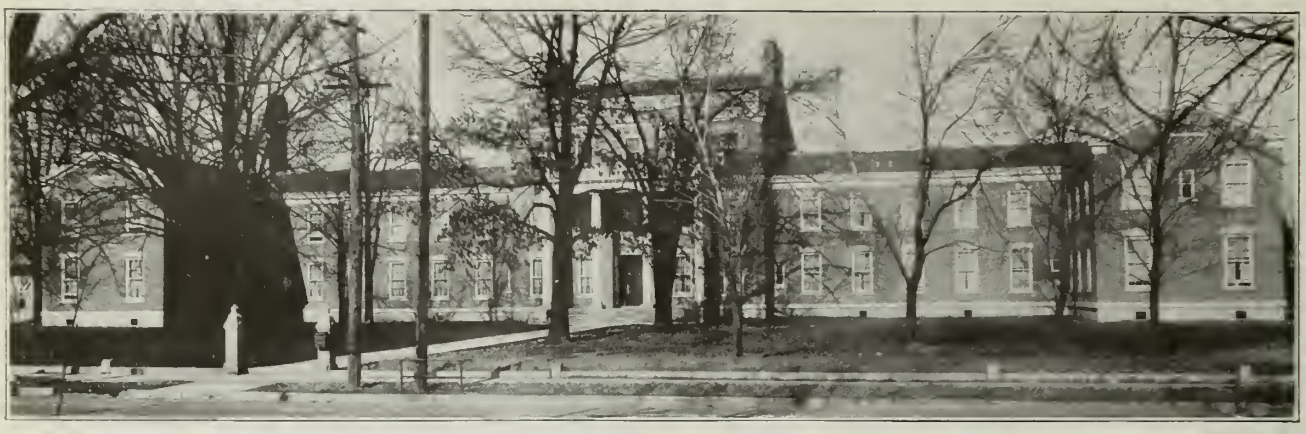
During 1919 still another hospital organization was added to the number already in the field. On September 9, 1919, at Cincinnati, the American Protestant Hospital Association was formed. This Association voted to cooperate in the survey, which is now being made, under the auspices of the Interchurch World Federation, of Protestant Homes, of hospitals, and institutions for children, the infirm, and aged in the United States and possessions. This survey is meant to show and tabulate the facilities and needs of these institutions, with a view to the development of future higher standards of service, and scientific advancement.

Literature

Some of the most fruitful work in molding public opinion and in furnishing leadership of thought on the subject of hospital standardization has been done by individuals. The writings of Dr. E. A. Codman and Dr. John A. Hornsby, of Dr. Robert L. Dickinson, Dr. John M. Baldy, Frank E. Chapman, and others, have furnished a stimulus of thought and action that is country-wide in scope.

A new conception of the hospital, a realization of its relation to the community, is taking shape in the public mind. Dr. George Gray Ward, in the report of the scientific work of the surgical staff at the Woman's Hospital in New York, has written: "Undoubtedly the community is awakening to the fact that, having passed through the antiseptic and the sanitary era, we are now on the threshold of the hospital era. The public is becoming educated rapidly to the advantages and necessity of modern diagnostic methods and to the fact that these can be obtained only in a hospital that is systematically organized to do proper diagnostic work. As a result of this knowledge, there will be a great increase in the number of people who will enter hospitals in the near future because they will appreciate that their cases will receive more thorough, systematic, and scientific study, with more perfect results and less expense, than if they remained at home. At present, in

The Ishpeming Hospital, Ishpeming, Mich., was opened in 1919 by the Cleveland-Cliffs Iron Company for the use of its employees. It has a capacity of sixty beds. Meyer J. Sturm, Chicago, architect.



This new building which the Illinois Central Railway Company erected at Paducah, Ky., to replace the one destroyed by fire, is fully up to the standard of hospitals which that corporation maintains along its lines for its employees. It has a capacity of ninety beds; outside patients as well as employees are accepted. Construction work started in the fall of 1918, and was completed in 1919. Richard E. Schmidt, Garden & Martin, Chicago, architects.

an urban community about 12 per cent of the sick, requiring professional care, enter hospitals.

"The board of governors, or trustees, of a hospital are primarily responsible for the kind of care and treatment that the patient receives, and they should not lose sight of the fact that the hospital which most successfully fulfills its functions is the one which is conducted with the primary ideal of procuring for the patient the best professional care, and not from the business standpoint of financial surplus. Hospital governors, as a rule, do not give the same intensive study to their hospital problems as they do to their individual business. They are interested principally in the balance sheet and do not concern themselves as to whether the results of the treatment the patients receive are what they should be.

"Because a hospital has large, elaborate buildings, with beautiful surroundings and socially prominent trustees, it does not follow that the patients of that hospital receive the skillful treatment which they have a right to expect. As has been well said, many such elaborate institutions are mere boarding houses or hotels for the sick. We all know that a small hospital, situated in the country, may give the highest type of scientific service to its patients. As Hornsby well says, 'the product of the hospital is health,' and also 'No hospital can be better than its medical staff.' We know that it is the character of the medical staff that determines the product of the hospital, and the governors or trustees determine the type of the medical staff.

"A man who accepts a position on the governing board of a hospital should realize that he accepts a public trust and that hospital trustees stand in the same relation to a hospital as trustees do to a trust fund. Therefore, they should demand and see that they get efficient results for the money they expend. Their responsibility can only be fulfilled when they have provided a conscientious, efficient medical staff, and a competent, tactful superintendent.

"It is the duty of the profession to educate the trustees as to their responsibilities, and when we can show them that efficiency in the hospital, just as efficiency in the factory, is an economic problem, they will become interested. Bancroft's statement that 'every cured and satisfied patient leaving the hospital is an asset and every unimproved or dissatisfied patient is a liability' is just as true in the medical world as its counterpart is in the business world."

The medical press has been almost a unit in furthering the work of hospital standardization. In this connection, the energy of THE MODERN HOSPITAL in keeping before the country the progress and distinguished success of any institution in the field of standardization has been of more benefit than can easily be estimated. If a prognosis may be made, based on the universal interest in the problem of hospital standardization, the institution of the future will be one which will fully justify the present efforts.

HOSPITALIZATION FOR VETERANS

Surgeon General Blue of the Public Health Service in the appropriation asked from Congress to build and equip hospitals to care for war risk insurance patients reports that more than 30,000 beds should be available by July 1, 1921. This estimate of the hospital facilities needed takes into account the treatment of selective service men passed by the local boards and later rejected at camps.

CALIFORNIA JOURNAL INSTALLS SECTION ON HOSPITAL SERVICE

Recognizing the importance of thoroughly equipped hospitals in relation to the development of medicine, the *California State Journal of Medicine* this year has installed a new section devoted to hospital service. Since inadequate hospital facilities often prove a serious handicap to physicians and surgeons of many communities, the Journal feels that these practical hospital hints will be appreciated by its readers.

HOSPITAL CONSTRUCTION IN 1919

By RICHARD E. SCHMIDT, Richard E. Schmidt, Garden and Martin, Architects, Chicago

The number of hospitals opened in 1919 does not appear to be much below the average of former years.

The reduced nursing staffs and higher wages for help of all kinds called for careful planning to effect the saving of time and labor. Labor-saving devices such as fast-powered dumb waiters, push-button elevators, refrigerating machinery, circulated drinking water, clothes chutes and similar devices were installed in increasing numbers, and durable materials which are easily cleaned and do not require replacing and refinishing at frequent intervals were more or less uniformly used.

IN spite of the fact that we were at war in 1918 and subject to the limitations placed on construction of new buildings by the War Industries Board, a considerable number of hospitals were under construction and others had accepted our advice to have building plans completed and in readiness to begin building as soon as the restrictions were removed, so that the number of hospitals which opened their doors in 1919 does not appear to have been much below the average of former years. Hospitals which were prepared to let contracts immediately after the armistice was signed, forestalled a great increase in the cost of their buildings. This increased cost is now dampening the desire of many hospital boards to construct new hospitals or to increase their existing accommodations.

Available statistics enumerate 129 hospitals in the United States and Canada which opened their doors for patients during 1919. These aggregate 5,721 beds, or an average of about 44 beds in each. One has as few as six beds, the largest general hospital, 326 beds, and the largest tuberculosis sanatorium, 300 beds.

New York state leads with a total of 925 new beds, Pennsylvania 632, California 440, Illinois 353, Missouri 233.

Although the actual number may be much larger, the average number of beds per hospital is probably no larger, inasmuch as all of the large institutions presumably have been accounted for and only the smaller ones omitted.

The photographs of some of the hospitals which were opened in 1919 indicate that the character of design has improved. The baldness and neglect of design on the exterior which prevailed a few years ago happily appear to be now considered inadvisable. It is more generally realized that a hospital of pleasing appearance has a desirable psychological effect.

The majority of the hospitals illustrated in this issue are exceptionally satisfactory from the viewpoint of good design; they indicate repose and restraint and withal are not extravagant or overornamented. Without indulging in the use of costly materials, their beauty has been created by excellent proportioning and the intelligent use of ordinary materials.

The Illinois Central Railroad Hospital at Paducah, Ky., has been built on the site of the old hospital which was destroyed by fire. Fortunately, the fine old trees were not damaged and the new building could be properly planned without necessitating the removal of any but the smallest. The inconsiderable elevation of the city above high water of the Ohio river made unwise the building of a basement under the whole building. The kitchens are in a separate one-story building, in agreement with southern experience and practice.

The new Columbia Hospital and its nurses' home, built on a large tract of high ground, overlooking Milwaukee, take the place of its old buildings in the heart of the city. The portion built is only one unit of the plan which has been made to develop a 500-bed hospital.

A central water sterilizing plant, floor lighting fixtures for night illumination of the wards, an electro-cardiograph, with wire and conduit, also telephone connection to many wards and rooms, which obviates the necessity of removing patients from their bedsides for the taking of cardiograms, and the signaling system by the use of which the patient can signal for any one of the more common things he may wish or need, such as "nurse," "water," "bedpan," or "urinal," save the nurses many steps and are among the innovations which may soon be in general use.

The building of a substantial, beautiful, and adequate nurses' home simultaneously with the hospital was unusual and is indicative of a commendable degree of foresight and concern for the nurses' welfare.

Lowell General Hospital, Lowell, Mass., has glass screens between the beds in the small wards and they are also used to subdivide larger wards

into four-bed units. Tray trucks to carry the food from diet kitchen to the bedside are also in use.

Pawling Sanitarium, at Wynantskill, N. Y., has installed the cafeteria system, and especially recommends this adaptation for sanatoriums and other institutions which have a considerable number of convalescent or ambulatory patients. This innovation has also been introduced in many institutions as a substitute for waitresses in nurses' dining rooms.

Recognition by the public of the necessity for tuberculosis hospitals has resulted in the building of many hospitals and sanitariums for this purpose. Several were opened during 1919. Among these, is the Norfolk County Hospital, Norfolk, Mass., which contains several unique features. The wards are illuminated sufficiently for the supervision during the night hours from the floor by blue lights in flush boxes with heavy plate glass covers, and the operating room has no lighting fixtures for night operations, as the walls and ceiling are illuminated by mirrors reflecting light from a source outside of the operating room itself.

Bristol County Hospital, Bristol County, Mass., is an illustration of a conversion, which economy may dictate in other instances. It was made out of an amusement park which failed to amuse, and the management reports that the result is not as unsatisfactory as the conception might indicate.

Patients Housed in Single Rooms

Two of the innovations which are being worked out in this hospital are the housing of all patients in single rooms, with plumbing for each separate room, or between each two rooms, and sending all supplies, on a telephone requisition, from the storerooms, located in the basement and in charge of high-class employees, to the various floors by power dumb waiters.

In large cities where the strike of coal miners and the difficulties of transportation have made the use of bituminous coal a necessity, air control or mechanical ventilation, which has been almost neglected, now deserves careful consideration. An ample supply of clean air is a requisite for a patient which does not require an advocate, but the greater amount of dust and soot in the outer air which enters the building through crevices around closed windows and through open windows is the cause of a tremendous amount of labor and of rapid deterioration of wall finish, woodwork, furniture, and linens. No figures have been compiled showing the saving in maintenance and replacement as between buildings for which air is washed and cleansed before introduction and those into which it is allowed to enter in its raw state through open windows. This matter is, however, of such importance that it requires careful attention.

Notwithstanding the fact that the practice of the War Department in the design and construction of army hospitals improved toward the close of the war, and that plans for better hospitals than those built were under consideration, these structures were only temporary and complied only with the necessities of military use. They have not affected or advanced the art of hospital design for civil uses.

Many Buildings Started in 1918

Many of the hospitals which were opened in 1919 were begun in 1918 and early 1919, when the building industry had not revived to its full productiveness; material costs and labor costs were but little higher than they were in pre-war days, and hospitals of fireproof construction, well equipped and with all modern arrangements were placed under contract for a unit cost of 35 to 40 cents per cubic foot, possibly 25 to 30 per cent higher than in 1915. These costs have almost doubled since then, and all signs point to further advances for several years. It is apparent, therefore, that the cost per bed has increased tremendously—from $2,500 to about $5,000 per bed for a completely furnished and equipped modern city hospital similar to many in our larger cities. The increase in the prices of supplies and furnishings was not proportionately as great as the cost of building, for a good part of the increase in these commodities had occurred in prior years.

A large number of the buildings which were stopped by the war for almost three years are being constructed. The attempt to do in one year that which should have been done in three years, with new projects for buildings of all other kinds, is the cause of the great drain on building materials and labor, already reduced by the vast quantities destroyed by warfare and the arrest of immigration.

Car Shortage Hampers Construction

The demand for open cars, which are used for the transportation of the major portion of building materials, was so great during the coal miners' strike and has continued to the present time, that there are no signs of a change at an early date, and all work of construction is being seriously hampered thereby. Manufacturers of building material find great difficulty in securing raw material, so that their production is greatly reduced and they cannot obtain sufficient cars to move what they have manufactured, consequently building operations are extremely slow.

On account of the scarcity of material and labor and the high cost of building, many hospitals must continue to use old buildings and modernize these in accordance with available funds. This is parallel with the resolve of many persons to make use of their old wearing apparel and household furnishings as long as they can be used commensurate with decency.

The Norfolk County Tuberculosis Hospital, Braintree, Mass., which was opened last year, is, as its name implies, devoted exclusively to the care of the tuberculous. It can accommodate seventy-one patients. It was almost a year in building and cost $200,000. Harold Field Kellogg, Boston, Mass., architect.

Innumerable institutions sought to increase their bed capacity by various means, adding stories, wings, or other alterations. The high cost of building may, therefore, force a decline from the generally accepted and approved standards of arrangement and equipment.

Prohibition and work of some kind for everybody, at wages commensurate with good living conditions, appear to have reduced the number of patients in county and city institutions in which they can receive care at no cost. The patients in such institutions in past years probably came largely from the ranks of the unemployed or underpaid. As these classes have gradually disappeared, having become better earners, they have insisted on being taken to hospitals where they could receive more specialized attention and pay for the service rather than be charges of a county or city. The result has been that the large public institutions are not crowded. Some of them are filled to only half their capacity, and private hospitals are crowded to capacity.

The reduced nursing staffs and higher wages for help of all kinds make necessary the most careful planning to effect a saving of time and labor. Labor-saving devices, such as fast-power dumb waiters, push-button elevators, refrigerating machinery, circulated drinking water, careful distribution of plumbing fixtures, chutes, linen, and hospital supplies, in order to reduce the travel of nurses and other attendants, are obviously necessary. Likewise, the centers of food distribution and waste disposal should be so placed that they will be only a short distance from the bedside.

The use of durable material, such as permanent floor material and painted or enameled plastered surfaces which can be easily kept clean by wiping or washing, and which do not require replacing or refinishing at frequent intervals, is of the utmost importance. These principles have always been fundamental, but are now more important than they ever were, on account of the greater cost of labor and materials.

An inquiry addressed to manufacturers reveals that a much larger number of hospitals is installing high class clothes chutes, dumb waiters, and similar devices than formerly. Hospital administrators realize that their institutions must be equipped with every service or item of equipment required to make their hospitals so complete that they will respond promptly to every demand of modern medicine.

Every service such as the laboratory, the electro-cardiograph, the bath departments, and the x-ray equipment can be made to bring a return which will raise the income. If the hospital cannot furnish these, this return will flow to other institutions, and will in time affect the patronage and reputation of the institution which lacks these facilities.

Now that many more persons seek hospital treatment than formerly, the care of convalescents should be developed. Inasmuch as they require less service and less attention, they can be housed in simpler buildings, which will cost less

per unit than a fully equipped hospital and which will bring a large return on the investment. Health and rest cures are also crowded to capacity. As it seems obvious that patients will wish to be under the care and observation of the physician who attended them while in the hospital, it is apparent that hospitals can establish wings or pavilions for this purpose, to be operated in connection with the hospital, at an advantage to both themselves and the former patients.

DEVELOPMENT AND PROGRESS IN THE FIELD OF HOSPITAL ADMINISTRATION

By ANDREW R. WARNER, M.D., Executive Secretary, American Hospital Association, Cleveland, O.

NO startling changes in the field of hospital administration became effective in the year 1919, but existing tendencies to change were sharply accelerated, and real progress was, apparently, brought much nearer. This was due principally to two factors: first, the return to civil life of large numbers of physicians trained in institutional medicine and management in our military hospitals at home and in Europe; and, second, the wider general interest in the problem of hospital betterment, or "standardization," as it has come to be called, although no one now believes that a real standardization is possible, or that it would solve or even simplify the problem if it were. More organizations and more persons are realizing that the hospital problem is one in which they are vitally interested, and that it really affects them and theirs. The direct effect of these two factors has been to broaden and deepen the general understanding that hospital administration is a real specialty even in the medical social field, and that long systematic training and special adaptation are necessary for the development of a degree of skill justifying appointment to such posts.

The return to civil life of large numbers of physicians trained in institutional medicine and management in our military hospitals and the wider general interest in the problem of hospital betterment, is making for real progress in the field of hospital administration. There is a great demand for more and better hospital executives. How shall this demand be met? At present hospital executives are secured and trained by practical experience as assistants. This is a slow process and does not attract men of sufficient caliber in sufficient numbers. Hospital administration must be held out to young men as an attractive and remunerative career.

The medical officers of the army and navy returned to civil life with very clear recollections of the varied conditions under which they worked; with a positive understanding of the value of organization in medical work and in medical institutions; and also with a conviction that the administrator, as the commanding officer, influences very markedly the work, working conditions, and the end results of the institution through his personality and adaptability for the position through his knowledge of medical and general organization, and through the other qualifications essential to executive leadership.

This explains the change which all hospital administrators have noted in the attitude of their returning staffs toward the administrative work and department. Difficult staff members have apparently reformed. They do the routine work of their departments with more care, punctuality, and exactness; they observe established rules and customs as never before; they now remember that there is an administrator with definite work and responsibilities and never assume his functions; they refer administrative matter to him for consideration and decision and abide by the decisions.

This change has been the end of some administrators' troubles, but it has been the beginning for others. The same staff member has acquired experience under various commanding officers in analyzing their work, and all the faults and shortcomings as well as the strong points of the hospital superintendent as an adminstrative officer are now more evident to him. He is expecting more of the superintendent as well as giving more himself. Some superintendents can stand with credit before this analysis of their work by staff members, but some can not. The field of hospital administration has gained much from the analysis and decisions of these many thousand personally and directly interested men, and staff members are in a position to make their viewpoint count, especially in a demand that the general adminis-

trator of the institution in which they are officers be a man properly trained, competent, and big enough for the position.

The tendency of the year under the stimulus of the new viewpoint of the returned army officer has been to broaden the scope of "professional" work. There has been, and is yet, a general sentiment in the medical profession that the man who is not daily using the stethoscope or the scalpel is not engaged in "professional" work and is, therefore, more or less apart from the profession. One physician who reached high rank in the Army Medical Corps remarked recently to the writer that he was having "real difficulty in adjusting himself again to *retail medicine*," by which he meant the meeting of the patients personally and doing the detail professional work. Have we not really developed two types of professional work—first, the "retail" or clinical, in which the physician has developed the personal skill in the use of the stethoscope or the scalpel and acquired a stock of such knowledge as is necessary for the direct contact with individual patients, and second, the "wholesale" or the application of medical service through the organization of larger groups of clinical physicians, nurses, and others into a smoothly working composite unit, serving relatively greater numbers than the same personnel could serve working individually? The management of such a unit is surely a position requiring special training as well as real ability in many phases of executive work; it surely produces medical results whether the position is filled by one having the degree of Doctor of Medicine, or not. It is "professional."

Many returned Medical Corps officers have desired to continue this "wholesale" medicine or administrative professional work. So many such instances in which the officers have applied for such work without previous experience in civil life or accepted positions as assistants, have come to the attention of the writer that the aggregate of the country must be a considerable number.

But what about the hospital administrator who is a layman? How does he come into this discussion? Many little incidents indicate a rapid development of opposition to the appointment of even really good stewards, accountants, pharmacists, or physicians as general superintendents simply because they were on the ground and knew something about the institution. On the other hand numerous incidents may be cited which indicate greater and more general recognition of the value of the lay superintendent who has learned the work of the management of a medical institution well, and who has become skilled, competent, and able.

A hospital superintendent does not need skill with the stethoscope or scalpel, nor does he need to know the mass of information required for "retail" clinical work. He does, however, need accurate and full knowledge of the policies, methods, and working equipment of "wholesale" medicine, the principles of business organization and administration, and many other things not taught in medical schools. It is, today as much as ever, a debatable question whether it is easier and better to acquire the required medical knowledge on the basis of other qualifications and training, or the other qualifications on the basis of a clinical medical training. It is perhaps better that this controversy remain for a time undecided in order that the field of hospital administration may accumulate the results of the best work of both types of men and women. In the smaller hospital in which the superintendent must personally direct more of the detail work, the nurse with some knowledge of business, of organization, and of the principles underlying executive work has proved especially efficient, and it is not likely that this situation will soon be changed.

The second factor, the development of the "hospital standardization" idea, has had its effect through the general thinking public—more far-reaching this past year than ever before. The points which the effort and movement for hospital standardization have fixed firmly in the minds of the thinking public are: first, that a group of good doctors does not necessarily mean a good hospital; second, that the welfare of the patients depends quite as much on the character of the hospital service as on the skill of their attending physician or surgeon, and that each is almost independent of the other. It is understood that the skill of an attending physician or surgeon can not prevent the unfortunate results arising from, or compensate for careless and poor hospital service.

When the public realizes that a proposition really affects "me and mine," it gets interested and inquisitive. The staff,—often unfortunately, —is largely exempt from scrutiny, criticism, or blame in questions relating to the efficiency of the institution. The superintendent and the trustees are compelled to stand up and face the responsibility; and both to the public and to the trustees the superintendent is the "general manager and responsible for results"; so the superintendent is critically inspected from both sides, and many times those on one side, or possibly on both sides, have wished that he had been a better man. In fact, any just criticism always results in the trustees' desire for a better general manager and an attempt to get one. But where, how?

Every hospital self-analysis, survey, criticism, or row in the whole country has added more or less to the rapidly growing demand for better hospital service and its corollary—better hospital executives. It is but arithmetic to determine that the country needs *more* hospital executives. When this is considered in the light of the fact that one frequently used source of supply, *i. e.*, the turning over of the management of a general hospital to a steward, accountant, pharmacist, or physician without any training or preparation for the work, is now in bad favor, we are compelled to do something about it. What shall that something be?

Training by practical experience as an assistant is good, but this cannot meet the demand for numbers, for two reasons: first, it is a slow process as long as the only instructor is experience, and trustees have not yet generally accepted the responsibility of putting the employment of assistant superintendents on any other basis than the actual temporary need for service to their hospital; second, the field does not attract men of sufficient caliber in sufficient numbers. Hospital administration must be made and must become known to young men as an attractive and remunerative professional career. Strong hospitals, especially those connected with universities, can recognize the need and the opportunity to develop organized courses of instruction in administration under the superintendent, as has been done, for example, at the Cincinnati General Hospital. But can we not take advantage of the present unusual situation, in which there is a general and urgent demand for more and better trained hospital executives, with a field unhampered by any established ideas, methods, institutions, or organization? Nothing will now need to be undone. All effort will mean progress. The situation will not continue long; something will become established very soon. Why should we not now settle the matter right by determining and establishing principles and policies which will place hospital administration as far ahead as we now see clearly that it must go, by organizing the machinery to produce routinely the kind of men and women we now know are needed for the work, and by meeting promptly the popular as well as the professional demand for hospital "standardization" through competency in the superintendent? Such a program is in no way visionary; it simply provides that hospital administration shall catch up with the development of our general health and welfare programs.

By far the most important development of the year has been the active interest in this problem taken by the Rockefeller Foundation—the most important because this Foundation is in a position to grapple with the problem of the hospital administrator by collecting and correlating all available information and thought and to place this data before the group best qualified to determine the best mean between the practical possibilities and the ideal, and then to aid in the actual establishment of the approved policies and program.

In November a group of interested men called in conference on the general hospital situation by the Rockefeller Foundation agreed that the training of competent hospital administrators is a distinct problem needing study and help and that the field is now open, *i. e.*, the problem is not now receiving active and constructive attention from any organization. Since then there have been definite expressions of continued interest in this problem and several developments indicating active participation on the part of the Rockefeller Foundation in various other divisions of the hospital field. As it has become clearly understood that the Rockefeller Foundation can not enter the field of support to hospital maintenance, the interest of the Foundation in hospital work must necessarily be through the general problems, and of these the problem of the supply and the qualifications of the hospital executives is perhaps the one most pressing. It is reasonable to hope that a thorough study of the problem of adequate training of hospital administrators in sufficient numbers leading to definite recommendations will soon be made by this Foundation.

Justified hopes, accelerated tendencies, and crystallized opinions are indeed powerful factors to bring action, and well worthy of mention, but may he who writes of the field of hospital administration for 1920 have definite, accomplished acts and progress to record.

EMERGENCY HOSPITAL SERVICE RULES IN SAN FRANCISCO

An example of a well organized emergency hospital service is afforded by the administration attained in the San Francisco emergency hospital service under the direction of Dr. Alanson Weeks, and now to be continued by Dr. Edmund Butler. The following rules might well serve as a model for all emergency hospital services.

(1) Under no circumstances is any doctor of this service to take for his own any case first seen by him in an Emergency Hospital.

(2) Immediate notification of the family physician and the relatives of all cases brought to an Emergency Hospital. If patient has no physician, a list of at least six doctors, who are known to be reputable, is to be given him from which he may select one.

(3) The doctor on duty is directly responsible for the searching and booking of valuables of patients.

(4) An Emergency Hospital sticker reading "Emergency Dressing only. Have your own doctor examine at once," is to be placed upon all dressings made in Emergency Hospitals.

PROGRESS IN NURSING EDUCATION DURING 1919

By ISABEL M. STEWART, Assistant Professor, Department of Nursing and Health, Teachers College, Columbia University, N. Y.

The cause of the acute shortage of student nurses in the rank and file of the nursing schools antedates the war. The root of the trouble is largely economic. The remedy lies in better provision for the nursing service in hospitals in order to enable them to provide conditions which will attract young women in larger numbers. These conditions are: shorter hours of duty; less housework (at least after the elementary period); better housing conditions; improved teaching personnel, equipment and methods; wholesome recreation and social life; the elimination of the old rigid system of military discipline and a greater measure of self-government.

THIS last year has been an exceedingly critical and difficult one in nursing schools. Although the war was over when 1919 began, medical and nursing staffs were still disorganized and depleted and hospitals had not yet recovered from the terrific strain of the influenza epidemic which, coming as it did on top of the war, created the most difficult situation which American hospitals have ever had to face. Many graduate and student nurses died in the epidemic and many more were obliged to give up their work. The whole educational program in most schools was suspended for weeks owing to the absence of lecturers and the critical situation in hospital wards. Indeed, many have not yet fully recovered from the demoralization of their teaching work during that time.

The main positive educational gain from the experience was the fact that it drew the pupils and the teaching and executive staffs of the hospital closer together and brought out an unusually fine spirit of cooperation and service. Whatever misgivings any one may have had before about the waning virtues of devotion and self-sacrifice in modern nurses, there could be no question of the heroism and self-forgetfulness of the great body of nurses in this country at that time, students as well as graduates.

Supply of Student Nurses

During the period of the war, applications to nursing schools had greatly increased, and in response to the appeals of the National Committee on Nursing, extra classes had been brought in to help in meeting war needs. It is estimated that in the 1,600 or more registered nursing schools in the United States several thousand more student nurses were enrolled than would have been under ordinary conditions. A fairly large proportion of these had been drawn from other occupations and had frankly enlisted "for the duration of the war." Most of those who were physically fit remained through the epidemic, but with the signing of the armistice they felt their war service was over, and numbers dropped out.

Applications to nursing schools began from this time to drop off noticeably. The question of applicants had been a perplexing one before the war, but it was hoped that the almost universal interest in nursing which the war developed might continue and that the newly aroused passion for patriotic work might find a congenial outlet in this permanent form of national service. These hopes have been disappointed. While it is true that the type of applicant in many schools has decidedly improved, and that several of the best schools in the country report no shortage of students, the scarcity of applicants in the rank and file of schools throughout the country is reported to be acute.

The causes of this situation go back much farther than the war. They seem to be due not so much to a lack of interest in nursing as to the fact that the average hospital training school seems to be unable to provide the conditions which attract young women in large enough numbers to maintain the present system.

With many other occupations inviting them and offering attractive opportunities and easier conditions of life and work, it is not, perhaps, surprising that many who really are deeply interested in nursing should hesitate before the long and exacting training and the very real sacrifices which are involved in the work of a nurse. There is no question but that hospitals have, as a rule, placed much too great a burden on their student nurses. The root of the trouble is, of course, largely economic, and the remedy must be found in increased provision for the nursing service of the hospital.

The most immediate reform is in the direction of shorter hours of duty. Although a few prominent hospitals have had an eight-hour day for

twenty-five years or more, and although the general movement for shorter hours in other occupations has gone ahead rapidly, hospitals have been as a rule exceedingly slow in reducing the excessive hours of their student nurses.

During the past year a definite movement has been set on foot by the League of Nursing Education, through its Committee on Education, and decided progress has been made. In New York City, for instance, there was on January 1, 1919, only one hospital with an eight-hour day, and that one had just begun. On January 1, 1920, there were seven whose hours had been reduced to this standard or very near it. Statistics for the country generally are being collected and will be published soon.

There is every indication that the solid sentiment of the country is back of this very necessary reform and that hospitals will be impelled by the force of public opinion, if not by actual legislation, to bring their hours in line with enlightened modern standards.

Readjusting Work of Student Nurses

It has been a constant criticism of nursing schools that they require their students to do a great deal of what would ordinarily be called housework, and that they insist on students repeating indefinitely more or less routine duties which demand little skill and have little or no educational value. Experiments have been made for the last few years with the use of paid hospital helpers or attendants for many of these duties, such as dusting, cleaning, making empty beds, folding linen, making dressings, and kindred duties, thus releasing the nurse for more of the actual skilled nursing work and making it possible for her to get more time for study. With the increasing scarcity of nurses, during the last year or two, hospitals have been employing these ward assistants more and more, and the results seem to be quite satisfactory. It is difficult, however, to secure such workers at present, even at forty or fifty dollars a month, which is often paid, and most hospitals continue to use the student's free service for all kinds of duties which could not possibly be regarded as essential to a training in nursing—at least after the elementary period.

Improvements in Courses of Study

In spite of all the dislocations due to the war and the epidemic, it is believed that there has been steady improvement in nursing schools during the last year along the line of standardization of courses and improvement of teaching methods.

The Standard Curriculum which was prepared by the League of Nursing Education a few years ago has been pretty generally accepted as a desirable standard for nursing schools, and an effort has been made throughout the various states to bring schools more and more in line with this standard. Though there is still a very wide diversity in the courses of study of different schools and different parts of the country, we are gradually securing more uniformity and a better organized program of work.

There is a marked increase in the number of instructors employed in nursing schools and a much larger demand for trained instructors than can at present be met. Two or three large schools have recently appointed educational directors who are responsible for organizing and developing all the teaching work of the school. There is also a gratifying increase in well equipped classrooms and laboratories, and in other teaching facilities, though we have still a long way to go in this direction before our schools begin to compare with most other professional schools.

Affiliations With Technical Institutions

Because of the difficulty of securing trained teachers and proper scientific equipment, several nursing schools have turned over a good part of their preliminary science teaching to technical schools or colleges. In some cases two or three schools have combined their classes, and have made arrangements for a regularly organized course in some educational institution of this type. This is evidently a growing movement. In California, intending students of nursing are encouraged to include certain of the preliminary sciences in their regular high school course, and some credit is given for these on admission.

The pre-nursing or preparatory course for college women, such as was given in Vassar College and a number of other university centers during the summer of 1917, has shown on the whole satisfactory results. In spite of a very considerable reduction (over half) of the students entering the hospital training from this source, there are still several hundreds of college women continuing in nursing, and we have every reason to expect that they will be a decided asset, especially in educational and public health work.

The war experiment of reducing the time of training for well qualified college graduates is being continued by several representative schools who consider the plan workable and quite justified by the larger numbers of well prepared students who are thus attracted into nursing schools.

Hospitals have not been as wide awake as they should be to the need for wholesome recreation and social life for their workers, but much more emphasis is being laid on these things and their

relationship to efficiency and *esprit de corps* is being more widely recognized. During the past year social directors have been appointed in several nursing schools to help in making the students' home and social life more attractive, and more provisions are being made for recreation and enjoyment.

The interest in student government is also growing and although some failures in this new experiment are reported, there is a pretty general feeling that the old rather rigid system of military discipline is not entirely satisfactory either, and that some compromise needs to be worked out which will protect sick patients and secure efficiency in the hospital ward and yet allow more opportunity for students to govern the details of their own lives and to take some responsibility for the conduct of their own student body. Strangely enough the most extensive application of the system of student government recently worked out, has been in the Army School of Nursing where it seems to have been successfully developed right in the heart of a military system.

The Army School of Nursing

This school which was started in 1918 to help in meeting the need for army nurses is being continued as a part of the regular army nursing system. In spite of considerable depletion, the student body still numbers over six hundred. Through affiliations which have been arranged with a large number of general and special hospitals and with public health organizations, the students are having a wide and varied experience both in civilian and military institutions, and it is believed that they will be well qualified not only for army work, but for other fields of nursing service which they

The Pawling Sanitarium, Wynantskill, N. Y., becomes the new home for the Lakeview Sanatorium at Troy, N. Y. The institution is devoted to the care of the tuberculosis patients in the county. Pember & Campaigne, Troy, N. Y., architects.

may wish to enter. The nature of this school makes it possible to try out some interesting experiments in nursing education which may be of benefit to nursing schools generally.

The Non-Resident Student Nurse

Another war experiment, which has continued in a few schools at least, is the plan of having some of the student nurses live in their own or in approved homes outside the hospital, during part or most of their training. The Presbyterian Hospital in Chicago had at one time during the war as many as thirty students living outside. Most of these preferred to come into the home as soon as rooms were available, but a few have continued as non-residents through most of their course. They have an eight-hour day (9 to 6 p. m.) and do not come to the hospital Saturday or Sunday at all.

Although there are some evident disadvantages about this plan, it has proved to be entirely workable, and is recommended as an economical and practical way of increasing a nursing staff, especially where accommodations for students are limited. Then, too, students who otherwise might not be able to enter nursing schools at all, may be admitted as non-residents and live in their own homes, as they would in any other system of professional education. It is hoped that more experiments of this kind may be tried.

The Training of Public Health Nurses

Although the work of public health nurses has been increasing rapidly for the last few years there has never been anything like the swamping demands of 1919. Here, again, the war and the epidemic were largely responsible for waking people up to the need for better home and community health work. Now every county and village wants a public health nurse of its own, and there is always much protest when no nurse is to be found for them.

Every effort is being made to open up training centers for public health nurses and to encourage hospital training schools to affiliate with these for the purpose of giving pupil nurses some experience in the public health field. During the year about a hundred schools have arranged such affiliations, and many more nurses are now being prepared, in some measure at least, for these newer branches.

There is every indication that a steadily increasing proportion of nurses will be engaged in public health work from this time on and that it will require a very special effort on the part of nursing schools to prepare the larger numbers of nurses required.

There have been many criticisms recently of our system of training young women for public health nursing and a few rather prominent public health experts have even offered suggestions for substituting in this field other types of workers without nursing training. A very able committee under the chairmanship of Dr. C.-E. A. Winslow has recently undertaken a serious study of the whole situation of training for public health nursing and has engaged an expert investigator, Miss Josephine Goldmark, to conduct it. This survey is not yet completed, but it promises to be the most important contribution which has been made in many years to the whole question of nursing education, and one which will have far-reaching results.

Financial Support for Nursing Education

Efforts to secure independent endowments for nursing schools in order to improve and extend their educational work had already been undertaken by the alumnae of one or two schools before the war. This work is being taken up again and a vigorous campaign is being planned by at least one alumnae association—that of Johns Hopkins Nursing School.

Endowments and gifts to nursing schools have been pathetically rare in the past, but there have recently been some indications that the public is waking up to the needs of the student body as distinct from the needs of the hospital.

A few gifts to nursing schools have been recorded recently, among them a gift of $10,000 to the Nursing School of Bloomingdale Hospital, White Plains, N. Y., and $50,000 to the Mt. Sinai Training School, New York, which is to be devoted to the welfare of the student nurses.

Scholarships for Nursing Education

A number of scholarships for nurses are available yearly from such funds as that of the Isabel Hampton Robb Memorial, and the Isabel McIsaac Loan Fund. Several hospitals are also giving yearly scholarships to their own graduates for advanced educational work.

Last year the large sum of $115,000 was appropriated by the American Red Cross for nursing scholarships, the larger sum of $100,000 to go to those wishing to prepare themselves for public health work and the rest to those taking special training for teaching in nursing schools. These scholarships have gone mainly to nurses who served in the Army, Navy, or Red Cross. The National Organization for Public Health Nursing also appropriated $10,000 for the training of nurses for teaching public health nursing.

Recently the Federal Board of Vocational Edu-

cation has extended to nurses who have some disability as a result of their war service, the same opportunities for further training which are provided for men from the army and navy. This means usually a year or more of special or advanced training with fees and all expenses paid. Some of the states are offering similar educational facilities to nurses who have been on active service during the war.

The Higher Education of Nurses

Largely owing to these unusual opportunities, most of our centers for the advanced education of nurses are this year crowded to over-flowing, and although the demand for highly qualified nurses will still far exceed the supply, it is encouraging to feel that so many are getting ready to fill some of the more responsible positions both in training school and public health work.

In the largest of these centers of nursing education (Teachers College, Columbia University), about 295 nurses have registered during the present college year. Of these 15 are working for the Master's Degree and about 75 for the Bachelor's Degree. In the summer session of 1919, there were 175 nurses registered in addition to those above mentioned.

During the year several new courses for nurses were opened in universities, among them courses for public health nurses in Minnesota, Michigan, California, and Syracuse Universities. Since the opening of 1920, Leland Stanford has announced a course for instructors of nurses which is likely to fill a great need in the west.

Several additions have been made to the number of universities offering the combined academic and professional course in nursing and the B.S. Degree of which there are now twelve. The new courses are mainly in the far west, among them Mills College, Occidental College, and the College of the Pacific in California, Colorado University, and the University of British Columbia, Vancouver, Canada. Minnesota University has also during the past year developed the five-year degree course in addition to its three-year course leading to the diploma. The usual arrangement is two years in the university (concentrating on the sciences and on general academic work), then two years in the hospital followed by a final year of public health nursing, teaching, or some other branch of special work. A pamphlet on this whole subject is now in preparation by the Education Committee of the League of Nursing Education and full details of these and other interesting university developments may be secured there.

Another interesting development of 1919 took the form of summer institutes for teachers and superintendents of nursing schools. One of these was held at the Illinois Training School, Chicago, and the other at Montana University. There is a great need for more of such courses throughout the country and it is hoped that they may be developed in time in each state.

Reactionary Movements

It was perhaps inevitable that the difficulty of securing nurses during the last year or two should have revived again the old agitation about the "over-training" of nurses and the clamor for a cheap worker of the old servant-nurse type. A reactionary group of men has made strenuous efforts during the past year to stampede nursing schools into a reduction of their educational standards and to intimidate nursing leaders by a campaign of newspaper criticism and misrepresentation.

But apart from the effect which all such efforts have in discouraging young women from coming into the profession, nursing education has not been seriously injured by these attacks. They have only confirmed the belief in sound education as an essential qualification for safe and efficient nursing work.

With all these disheartening attacks on nurses and nursing at home it was particularly encouraging to have the enthusiastic testimonials of those who had seen the splendid work which American nurses did overseas. If any vindication is needed of the long struggle to hold up nursing standards, surely it was found in the experiences of the war both at home and abroad.

The Future

No thoughtful person who studies the situation in nursing education today, could fail to be deeply concerned by the many difficult and critical questions which are waiting to be solved. To those who have been watching closely the signs of the times, there are many evidences that the old apprenticeship system which has served us as a system of nursing education for the past half century, is beginning to break down, and that some rather radical modifications will have to be devised to enable nursing schools to keep going—still more to keep pace with the rapidly advancing needs of this new day.

The acute scarcity of students which is pinching hospitals now, will in the end be a blessing in disguise if it only shows up clearly the very short-sighted, unbusiness-like, and ungenerous policy which most hospital officials have consistently employed toward their schools in the past, completely subordinating them as they have almost invariably, to the interests of the hospital. No kind

of school could flourish under such treatment. But for the determined struggle of many of the women who have been responsible for the teaching and training of nurses in these schools, the whole system would have broken down long ago. These women have stuck to their task in the face of every kind of opposition and discouragement, hoping to make the training worth while, even where as in many schools it was a case of making bricks without straw. Many of them are completely worn out and discouraged by the endless struggle, and it is now more and more difficult to get able women to take up hospital and training school work because of the general lack of support and the lack of freedom to work out the broad and progressive policies which the times call for.

If the present system of hospital-controlled schools is to be preserved at all, it will be by thorough-going reforms, such as have already been carried out, to some extent at least, in a very few progressive hospital schools. It is an undisputed fact that where living and working conditions are fair and generous, where students are happy in their work and in their social life, where the training itself is felt to be distinctly educational throughout, in theory and practice, there is no need to worry about applicants. Where these conditions do not exist no amount of publicity and no cheap "attractions" can make a school live and thrive.

It may be that like medicine, engineering, and many other branches of professional education, nursing will gradually evolve out of the stage of apprenticeship and will establish independent schools where a more systematic and a sounder education can be given. Arrangements could be made with hospitals for such practical experience as the student needs, but she would be free from some of the unfair exactions which result from the hospital's demand for cheap service.

The present trend toward university departments or schools of nursing would seem to suggest that these institutions will probably assume more and more responsibility for organizing and developing the nursing education of the future, and our greatest hope undoubtedly lies in this direction.

For the present, the wisest policy is to hold fast to those principles which we have tried and tested and found good, and at the same time to take advantage of every possible opportunity to study and try out new plans which offer some hope of improvement in our present system. Perhaps in the future we may look back to these confusing and difficult years of the war period as the most decisive and fruitful in all our recent history.

LAUNCHES "KEEPING FIT" CAMPAIGN FOR AMERICAN BOYS

The United States Public Health Service has started a campaign in America to reach all boys between the ages of fifteen and twenty years and interest them in a campaign to keep themselves physically fit. This is not being done with the idea of raising the boys to be soldiers, but because there is one young man in every three who is physically unfit, not only to be a soldier, but anything else that requires strong, vigorous manhood. The importance of this formative period of a boy's life cannot be overestimated, since it is during these years that he forms the ideals and habits that go with him through life.

Surgeon General Ireland of the Army and Surgeon General Braisted of the Navy have taken a keen interest in this work, and have sent messages to the boys within this age group through Surgeon General Blue of the United States Public Health Service. These "Keeping Fit" messages heartily endorse the movement. The work also has the backing of the Y. M. C. A., churches, welfare organizations, and educators throughout the country.

One of the newest and most up to date tuberculosis hospitals erected in recent years is the Irene Byron Tuberculosis Hospital at Fort Wayne, Ind. Its bed capacity is 54. Charles Weatherby, Hamilton National Bank Bldg., Fort Wayne, architect.

THE PRESENT TREND OF MEDICAL SOCIAL WORK

By EDNA G. HENRY, Director of the Social Service Department of Indiana University

THE first medical social service department in America was organized in 1905. By September, 1911, there were six. After that the increase in their number was almost alarmingly rapid until the war was declared. Since the end of the war there is a more rapid growth. During the war medical social service was introduced in military hospitals. Since the war it has entered the Roman Catholic and the United States Public Health hospitals.

There are today, in the United States and Canada, two hundred ninety-six individuals or groups of individuals called social service departments. No two are precisely alike. They vary with the purposes of the institutions in which they are found, with the laws of the different states in which they are located, with the character of their organization, and with the type of workers whom they employ. But at least seventy-five of these have a claim to be called medical social service departments under the narrowest definition.

In order even to discuss the subject, the medical social service department should be defined even if the definition should prove not only to be unacceptable to, but even justly resented by, some good departments. A medical social service department is an organization within a medical institution. It gives social attention, looking to the care or cure of patients within that institution; and it does this at the request of—or by the permission of the medical staff.

Such organizations first were called hospital social service departments, but as the work spread west where there were more dispensaries which were not out-patient departments of hospitals, they became known more and more as medical social service departments. It is generally understood that they are not found outside of medical institutions. The distinction is not always made, however, even by the workers themselves, between the public health servants used by tuberculosis associations, child welfare agencies, or mental hygiene societies and the medical social worker who belongs to a recognized department.

Organization of First Medical Social Service Departments

The first social service departments were formed and financed by groups outside of the hospital. The majority, and some of the best, are still so supported. Thirty-seven such departments say that they would have no other source of income. It gives them, they think, a needed independence and does not at all interfere with medical cooperation. Also, the financing committee helps to educate the community. Several departments are paid for by schools of nursing, of which they are definitely a part. These, of course, constitute a great extension of the nursing service of the hospital and are a very definite part of it, even if paid for by others than the hospital itself. Fifteen departments originally financed by outside funds are now supported in part by the hospitals in which they are found. Twenty-six are wholly so financed, either by the hospital or dispensary itself or by the city boards of health, state boards of charity or universities which also finance the medical institutions in which they are found. The present tendency unquestionably is toward the last method. Nor is there much question about its being the best way in all respects, except for those departments long well established upon another basis.

There are, however, several objections to this method at present. They are based largely upon unfirm foundations and will disappear with time and the further efficiency of the departments. It is true that today a hospital just starting such a department is very apt to demand from it, and to be satisfied with, merely follow up work for a dispensary or financial investigation for a hospital. Sometimes the department is expected to finance itself by such saving. Such practice is most certainly not medical social work. It is not even social work. It is but a thinly disguised phase of hospital administration. The well organized social agencies of a city might complain justly that "it is absurd to think that physicians are competent to direct social workers."

One department, which is the most scrupulous about conference with, and service to, the physician, takes the ground not only that it is a crime of ignorance for any medical social worker to say to a physician, "this patient has heart disease," but that it is almost equally sinful for a physician to suggest to the worker the paying of rent or the breaking up of a family. Part of this difficulty arises from the fact that thus far most medical social workers have been nurses, trained always to look to physicians for direction. Part of it arises from the complacent ignorance of outside social agencies concerning medical social service departments, what they are or should be. As a matter of fact, many of the departments them-

selves, outside of a clearly felt obligation to the institution and to its patients, are a bit hazy as to their purpose in life. There is coming to be, however, a more and more well-defined conviction that a medical social service department, working with its physicians, ought to help a medical institution to cure its patients, and at the same time to study the physical and economical conditions which create those patients. It further should seek for cooperative aid in the community to remove those conditions.

Cooperation with Desirable Welfare Organizations

One of the reasons why other social agencies regard medical social service departments with a critical eye is because of their real lack of wisdom in the giving of relief. There is even yet a radical difference of opinion on this subject. The medical social service department which is concerned for a patient wants for that patient, not what somebody thinks is good for him, but what he really needs in order to get well. It is an unusual head worker who will not try to find a way to get it. She has seen the patient sick and suffering and knows from his doctor precisely what it will take to mend him. It is a courageous department, and one of much faith, which believes that its own withholding of relief will tend to improve the standard of family work in its community; but it is a fact that it will. In those cities where the medical social service departments depend upon local relief agencies, these admit heartily that the departments unquestionably have improved the standards of social work, that there is better cooperation, more attention paid to physical conditions and more adequate relief given. It is perfectly natural that where the departments take another attitude, the charity organization societies should regard them as pests and think their influence bad or negligible. Unquestionably the present trend is for the medical social service department to give no relief, with the possible exception in some cases, usually in those financed by the hospital, of glasses, orthopedic and kindred appliances. In those communities where cooperation is poor, where relief is inadequate or ungentle, or ignores the physical condition, the medical social service department probably will continue to supply at least part of it.

The question, not only of relief, but of much of the character of case work done by the social service department, is further influenced by the type of training or want of training the worker in charge has had. The first workers were nurses. Too many since have had no training at all. Even yet, while many departments are manned by college women, too many are in charge of the inexperienced. The majority are still managed by nurses. Too often a medical and not a social training is demanded. This begins to be recognized as a mistake. It is now commonly conceded that, although some of the greatest medical social workers have been nurses, they have been successful, not because they were trained nurses, but because they also were women of exceptional character and education. In the majority of social service departments no one but a nurse will be considered, even yet; but even in these departments the demand now is for graduate nurses with additional social training. A recent inquiry made of a large number of departments concerning the training they desired for their workers brought a majority of answers asking for graduate nurses with one or two years of social training. Five insisted upon people with a college degree or its equivalent. One said that it had an open mind upon the subject. It would take with equal willingness a graduate nurse with a couple of additional years of social training, or a college graduate who had had some training or experience in a hospital, provided either was a woman of the right character, temperament and education. This indicates the present trend very clearly.

The demand of today is for an entirely new type of woman, educated for a new profession. While it is not always consciously recognized, the knowledge now exists that if this work is to be done successfully it must be done by women of a sort more nearly resembling the physicians with whom they work. As the demand of medical schools increases for previous college education in its students, the demand for college work for medical social workers will increase.

There have been many motives for the organization of medical social service departments. The first were, perhaps, human pity, increased efficiency for the dispensary and economy for the hospital; but very soon the idea of teaching entered in. This was in part because there was a scarcity of medical social workers, in part because some of the social service departments belonged to universities or training schools for nurses. The underlying but usually unnoted reason, however, is that the medical social worker has no value except as she is a teacher. She must interpret and reiterate the doctor's orders and teach the patient. She must interpret the community's needs to the doctor, and illuminate the background of the patients' ills to student nurses and medical students. Two departments connected with universities are teaching social work, with the patients of medical institutions as laboratory material. One of these

universities goes so far as to say that it considers this teaching valuable as general education, not only as professional training.

There have been more student nurses in medical social work than any other kind of students. They, too often, have been taken merely because more work could be done with them. In many departments, however, a real and honest effort is made to convert student nurses into medical social workers; while one department is frankly teaching them that they may be better nurses only. In other words, medical social service departments, even where they have not realized it, are becoming an educational force. They are making for the spread of greater knowledge concerning social problems, especially those in which disease is a factor, their proper solution, and the power of preventive medicine. They could be made, if the institutions of which they are a part but wished it, a great existing force in preventive medicine.

It is possible that it will not be many years before the medical profession will see in the social service department the instrument by which it consciously may seize upon and use the science of sociology for its own purposes, even as it has used all other sciences, in the order of their development. The psychiatric social service departments, although the last organized, are scientifically far in advance of the other medical social service departments. It is not often recognized that this is true because, more than others, they depend for their efficiency upon the more advanced science of psychology rather than upon sociology. Departments of the future will have to work out, in connection with the professors of medicine and the sociologists, a teaching branch for their own work which will not only perfect it for the care of all types of patients but will make the new science valuable to medicine. That it can be made valuable is proved already by the striking success there has been in some places in the introduction of a course given by medical social workers to students of medicine.

Legal Control and Case Work Necessary

This introduction of teaching in the work of social service departments has deceived some into thinking that all departments should teach. This would be most unfortunate. Most departments should and do concern themselves with the care of patients only. The majority of them if they will look into their records, will find that their first cases presented a mental or nervous problem, that the next ones were tuberculous, and the next cardiacs. It is not by accident that national societies for the prevention of these conditions have been organized. The discovery by medical social service departments that heart disease presented a social problem and that the care of patients suffering from it resulted both in help to the patient and economy to the hospital, has started a movement less noticed but as influential as that for the care of sick children. Long before there was prohibition or any public control of venereal disease, medical social workers stated that there would have to be legal control of both problems before they could be fully met. Case work was effective but not sufficiently far reaching. The medical social service departments are now calling the attention of tuberculosis societies and the United States Public Health Service to the fact that legal control without case work is almost equally ineffective.

Social Service an Educational Force

Medical social service departments are becoming self-conscious. They begin to realize they are an educational force, but are of no value unless they first educate themselves and do their medico-social work well, even to the following of it into the community. While more and more departments are relying upon other agencies for material relief, they less and less are transferring the care of their patients to others. One hospital, which receives patients from an entire state, even has a social service department with a state worker who follows them home. Many of the great eastern hospitals, who long have done similar medical work, are attempting to secure care for their patients in the most remote communities.

Medical social service departments, then, are becoming more and more a part of the institutions which they inhabit. They are releasing, gradually, the question of financial relief to others and are giving more attention to their own problem, that of the physical condition. Constantly their responsibility for the patient leads them farther from the hospital door until a real sense of responsibility to the community as well as to the patient is being developed. They are a big factor in the new belief that a hospital ought to be a social asset.

Medical social service departments have a chaotic, if beautiful, past, but a future which no one can see. Both the medical profession and the sociologists should recognize in these organizations an opportunity to find out how much physical conditions really contribute to social disease, and to learn how much sickness is due to social inadequacy. Hand in hand they may remake the world, for the social service department, among other things, marks the advent of the science of sociology into the field of medicine.

SALIENT POINTS OF PROGRESS IN TUBERCULOSIS SANATORIUM DEVELOPMENT IN 1919

By T. B. KIDNER, Institutional Secretary, National Tuberculosis Association, New York City

In the field of tuberculosis sanatorium work progress was made in 1919 which cannot but be regarded as gratifying.

Among the achievements are these:

The opening of twenty-five new tuberculosis sanatoriums with a total capacity of 1,263 beds.

Four states appropriated funds for seven new state tuberculosis sanatoriums.

United States Public Health Service opened four tuberculosis sanatoriums for former service men.

Auxiliary methods of treatment for tuberculosis more largely employed.

NOTWITHSTANDING that the year just closed was in many respects so grievous a disappointment of those high hopes and ideals with which it was entered upon by a war-weary world, it is good, in looking back, to find that in the narrower field of tuberculosis sanatorium work, progress was made which cannot but be regarded as gratifying. In spite of the high cost of materials and labor during 1918-19, no less than twenty-five new sanatoriums were opened during the year 1919, with a total capacity of 1,263 beds. It is true that the increase in the number of beds available throughout the country was not large, but it is interesting and significant to note the groups into which these new institutions fall, as follows:

State sanatoriums (2 in U. S.; 1 in Philippines)	3
County sanatoriums (2 of them replaced old smaller county hospitals)	15
Municipal sanatorium	1
Private sanatoriums	4
Preventoriums	2

It is to be noted that state, county, and municipality are included; private initiative is still at the fore; and, perhaps best of all, the children were not forgotten, as shown by the fact that two preventoriums were opened.

Sanatorium Legislation of 1919

The record of provision for the future which was made during 1919 is also encouraging. By legislation duly passed, four states have made provision for a total of seven sanatoriums, as follows:

Idaho: An act providing for two sanatoriums, one in the north and one in the south of the state.

Maine: An additional appropriation for a new state sanatorium, supplementing an appropriation made in 1917.

Oklahoma: An act providing for three sanatoriums, two for white persons and one for negroes, and also making an appropriation for maintenance for two years.

Virginia: Provision made for an additional state sanatorium.

County and local sanatorium authorities were not behind, for the record shows that of this class of institutions, nine were under construction; sixteen had secured a site or an appropriation, or both (some probably under construction by this date); and three made appropriations providing for an increase in capacity.

The foregoing does not take into account the sanatoriums opened by the United States Public Health Service for the care of tuberculous ex-service men. These, located at New Haven, Conn.; Greeneville, S. C.; Palo Alto, Cal.; and Deming, N. M., provide something over two thousand beds.

Rejected Draftees Require Treatment

Considerable though this provision be, it is evident that the work of the United States Public Health Service in this direction is little more than begun. In addition to the number of men already discharged from service as tuberculous and those definitely under treatment for this disease in army and navy hospitals, all of whom are potential cases for care by the Service as beneficiaries of the Bureau of War Risk Insurance, the recent passage of the Sweet Bill by Congress brings under the provisions of the War Risk Insurance Act some 205,000 men, many of them tuberculous, who were passed by the draft boards, but rejected after arrival in camp or cantonment by the army medical officers. Estimates vary as to the proportion of men rejected in camps, as suffering from tuberculosis, who will require sanatorium treatment, but in a statement just presented to Congress (House Document No. 481) the United States Public Health Service estimates that by

1924, when the "peak load" is expected, sanatorium accommodation must be available for not less than 12,400 tuberculous ex-soldiers, sailors, and marines, as beneficiaries of the War Risk Insurance Act. The document in question asks for an appropriation of $85,000,000, to be spread over several years, to provide for the hospitalization of ex-service men; provision being made for general, tuberculosis, and psychiatric institutions.

In passing, it is interesting to note the use of the word "hospitalization" in this sense, which seems to have come about since our participation in the Great War. Formerly, in this country, the term was chiefly used in a sinister sense, to denote the bad effects of idleness ensuing from a prolonged sojourn in a hospital or institution.

An Awakened Public

References to the revelations from the draft boards' examinations of the sad lack of health among the nation's young men have been very numerous, both in professional and general journals and in the public press, and various hopes and suggestions have been put forward in consequence. Perhaps in no single disease or disability have the lessons to be derived been pointed out with more force and effect than in tuberculosis. Notwithstanding the widespread campaign against this disease, the public at large had not realized its extent, but the figures of the draft boards have brought home to many more persons a knowledge of its ravages and have turned public attention towards means for its treatment and possible eradication. In at least one of the states which have made provision for sanatoriums during 1919, the legislative campaign was made almost wholly on the facts revealed by the government statements as to the medical examinations of candidates for the army and navy.

But the establishment of sanatoriums alone is not sufficient, and side by side with this must go the organization of public clinics, home visits by tuberculosis nurses and other health workers, cooperation of the medical profession, the establishment of preventoria and open-air schools for children—all measures on the preventive side. In these several directions much progress has also been made during 1919. In connection with public clinics, it has been proved that these need not be confined to large centers of population, for traveling clinics have been organized successfully in several states, notably in Washington, Illinois, New York, and Kentucky.

The work of the Home Service Division of the American Red Cross among the families and dependents of men in the service has given a great impetus to the movement for dissemination in the homes of our land of information on health matters in general and tuberculosis in particular. The announcement of the peace-time program of the International Red Cross is fraught with significance for all health workers, and of tremendous augury for future good. The medical profession, always self-sacrificing, has also done its part nobly and whether or not the much talked of "socialization" of medicine is "a consummation devoutly to be wished," it seems certain that the wider interest of the profession in other than the mere treatment of disease which was so manifest in the year (and years) just closed, will develop more and more in the coming decades.

For the children, some progress was made in 1919, though not nearly as much as was needed. But the leaven is working and very few of the city school boards which undertook new buildings last year did not provide for open-air schools, with their concomitants of feeding and home visits for those children suspected of, or suffering from, tuberculosis and other diseases or subnormalities. In places, too, efforts were made to overcome some of the bad effects which have followed the blind adherence to mechanical systems of ventilation by public school authorities on this continent, and several successful installations of "natural" ventilation systems have been noted.

Apart from the broad field of preventive measures, 1919 was full of significance on the therapeutic side of tuberculosis work. Splendidly led by the Surgeon General of the Army, there has been a remarkable broadening of the conceptions as to the treatment of tuberculosis. No longer is it the custom for a patient to be discharged as apparently arrested and advised to "seek some light outdoor occupation," only to "break" again in many instances in a comparatively short time; but instead, from the first his "reconstruction" into a useful member of society is aimed at. The theory of exercise and graduated work in the therapeusis of tuberculosis was not new, but never before had it been possible to attempt on a large scale and under the direction of so large a number of physicians skilled in the treatment of the disease, such an experimentation, classification, and verification of the therapeutic value of occupation in tuberculosis. It seems probable that in years to come, 1919 will stand out as the year in which the value of occupational therapy in the treatment of tuberculosis came to be fully recognized and began to be generally applied. Side by side with this was the recognition of the necessity of providing proper recreation—organized, adequate, and varied—to assist in inducing that restfulness of mind which has come to be

considered as of almost equal importance with restfulness of body in the "cure" of tuberculosis.

Almost throughout the treatment, even during the "infirmary" period, it was found possible in army sanatoriums to use occupational therapy with good effect. Later on in the case, when the semi-ambulant stage was reached, a wider variety of occupations was organized, while for the ambulant period, classes in a wide range of studies and workshops offering training in various crafts were installed and employed with excellent results in sustaining morale, the arrest of the disease, the physical improvement and hardening of the patients, and, last but by no means least, an increase in the capacity and earning powers of many of them.

Thus it has come about that features of construction and administration which were confined only to a few civilian institutions are being taken under consideration by sanatorium authorities on every hand. Medical officers who observed the effect of organized occupations for the patients under their care in army hospitals are returning to their civilian spheres and many of them are urging the provision of accommodation for occupational and vocational training in classrooms and workshops in civilian sanatoriums in which they are interested.

Advances Made in 1919

Still other advances were noted during 1919. The vocational rehabilitation of the disabled from the war has given a great impetus to the study of occupations from the standpoint of their feasibility for men suffering from some bodily handicap, whether from wounds or disease. This has involved more attention to the post-sanatorium life of tuberculous persons and their employment in suitable occupations. Three important contributions were made to this subject during 1919 by the Federal Board for Vocational Education, aided by a special committee appointed by the National Tuberculosis Association. The first was a study of occupations to discover, if possible, whether lists could be provided both of suitable and inhibited occupations for the tuberculous, but resulted instead in the formulation of a set of standards capable of being applied to any occupation, by means of which its suitability, or non-suitability, might be judged. A second useful contribution was a study of that dream of many tuberculosis workers, the colony—agricultural and industrial—wherein tuberculous persons and their families may live useful lives with at least a favorable chance of living out "many days and full of happiness." There are great difficulties in the way of this achievement, but the pros and cons of such an enterprise are being discussed widely as a consequence of the publication of this study, and it is hoped its realization is appreciably nearer in consequence.

Real Progress Is Apparent

A third study dealt with the project of productive vocational workshops for the rehabilitation of tuberculous ex-service men, but is equally applicable to civilian sufferers from the disease. The establishment and successful carrying on of such workshops have already been proved to be feasible in the well-known Hochhauser experiment in New York City, where another similar project has also been undertaken. Active steps are also under way in other large cities to establish such workshops.

Distinct contributions were also made during 1919 by the Federal Board for Vocational Education to the problem of post-sanatorium care of the tuberculous by the establishment at several different points of vocational training centers where arrested cases may undertake vocational re-education for some new and suitable occupation under medical and nursing care and with proper conditions of housing, feeding, study, and work. The experience of these centers will react upon and be linked up with sanatorium work and will thus prove an important part of the wide field of restorative work.

With all its discouragements, a calm survey of 1919 shows, then, that progress has been made, both in preventive and curative measures. Numerous hospitals and sanatoriums for the treatment of tuberculosis were opened and many others projected; auxiliary methods of treatment were more largely employed; after-care received increasing attention. Although there is an enormous work yet to be done, when looking backward over 1919, may not sanatorium and other workers in the field of tuberculosis say, with all modesty, in the words of Othello, that they "have done the state *some* service"?

Forsberg: Do you know what prunes are?

Aitken: No, what are they?

Forsberg: Raisins with inflammatory rheumatism.—*The Stethoscope.*

A nurse in a dispensary tells this story: "One of our poor patients had her jaw fractured by her drunken husband breaking a chair over her head. As he was out of work and they had a lot of little hungry mouths to feed, poor Mrs. Mooney had to do washing, which was very detrimental to her jaw healing. One day I went into the room to see how she was getting along, and some one called me 'Mrs.' I said, 'I am *Miss*, not Mrs.' She turned and gave me the most pitying look, and said: 'God help you, dear, and haven't you a man?'

"'No,' I said, looking at her poor forlorn face, 'I have no *man*, but I have a whole jaw.'"

THE 1919 LABORATORY FIELD IN RETROSPECT

By LOUIS B. WILSON, M.D., Director, The Mayo Foundation, Rochester, Minnesota.

PERHAPS the greatest progress which hospital laboratories have made during the year 1919 is in the markedly increased appreciation of their value by clinicians. This has grown out of the more widespread intimate contact of clinicians with laboratory procedures during the war. During 1917 and 1918, one-fourth of the medical profession of the United States was called into active service in the United States Army, and served either in camps in the United States or overseas in the care of sick soldiers. In all hospitals in the United States and in all except field hospitals in the American Expeditionary Forces, laboratories were in constant operation. By the end of November, 1918, 1,450 medical and sanitary corps officers were in the laboratory division of the medical department of the army. These men were drawn from university, federal, state, municipal, and hospital laboratories. They were brought together in the army, in some instances given special training in laboratory work, but in any event rapidly molded into a laboratory division which, although always notoriously undermanned, almost always "delivered the goods." By the time of the signing of the armistice the quality as well as the quantity of laboratory work which had been accomplished in the United States Army was simply marvelous.

The more widespread, intimate connection of clinicians with laboratory procedures during the war has resulted in a greater appreciation of their value.

There is great need for more laboratory housing and equipment. Hospitals are urged to borrow from army experience and erect, even at the sacrifice of architectural beauty, buildings which, meeting fire regulations, will provide as much space and light as can be obtained from the money available.

The laboratory provided, the next greatest need is for trained laboratory men for every sizable, honestly conducted hospital.

Many medical officers during their civil practice had not had access to adequate laboratory service and had not previously known what efficient laboratory assistance might be. In the army, at first some of them were skeptical of its benefits and ignorant of the help that the laboratory might give them.

However, most of them soon learned that here was assistance which they greatly needed, and they soon came to appreciate it. Thus, in whatever clinical field,—medicine, surgery, or what not,—they might be working, they came to rely constantly upon the quick and accurate service rendered by the army hospital laboratory.

During 1919, most of the 33,000 medical officers left the army and went back to private practice. In many instances they went back to practice in connection with hospitals in which the laboratory equipment and personnel were totally lacking or pitifully inadequate, and, remembering the aid which they had received in their work in the army, they began at once asking that better laboratory facilities be provided. These requests usually have been for the "common garden variety" of laboratory procedures, such as urinalyses, hemoglobin estimations, differential blood counts, bacteriologic examinations, and the like, although there has been demand also for the more complicated procedures of serology, blood chemistry, and fluoroscopy.

There has also been a most wholesome increase in the appreciation on the part of clinicians of the importance of autopsies. The autopsy service rendered by the pathologists of the American Expeditionary Forces was one of the finest that any organization has ever known. Through it many clinicians and surgeons for the first time came to realize how frequent and how great were their errors in diagnoses and treatment in fatal cases inspected by a competent pathologist at the autopsy table. Many clinicians now really come to postmortems on their patients rather than merely say that they would like to come,—a practice which, if persisted in, will do much to improve the professional work of hospitals.

And how is this suddenly increased demand by clinicians for competent laboratory work being filled? I regret to say that I fear most inadequately. Inadequately, because of lack of proper laboratory facilities and lack of properly trained personnel.

The situation in laboratory housing and equipment is serious. In the army, men learned that the finest kind of laboratory work could be done in barracks with relatively simple equipment, but limited ground space and wise fire ordinances forbid the building of barrack-type buildings in con-

nection with most hospitals. At the same time, with the present high cost of materials and labor, and the scarcity of glassware and laboratory apparatus, even well to do hospitals are loath to make the extension of laboratory space and equipment necessary to meet the demands for more and better laboratory work. Only a few hospitals have devoted part of their building fund to improving the quality rather than increasing the quantity of their work, by adding laboratories rather than beddage. One that has done so is the Philadelphia General (Blockley), which has just dedicated a magnificent $300,000 laboratory building.

It is to be hoped that hospital boards may borrow as much as possible from the army experience and erect, even at the sacrifice of architectural beauty, structures which, meeting fire regulations, shall otherwise provide as much space and light as it is possible to obtain for the money available. If this is not done and done soon, it is to be feared that this, which should be the beginning of the golden age of scientific medicine because of the conditions mentioned, is apt to be the beginning of a period of deterioration in the fundamental medical sciences. Radical steps must be taken immediately to provide in some measure the facilities which the present clinical interest demands.

More Laboratory Men Needed

Let me not be misunderstood, however. The greatest need at present is for well trained laboratory men. The erection and endowment of hospital laboratory buildings are very important, but it is futile to hope that patients in this day and age can have their best interests served and guarded by the scientific work of medical men who are laboring solely for love.

There never have been enough laboratory men in the United States to fill the demand. Because of lack of adequate remuneration they have constantly gone into executive or clinical work. In 1917 and 1918 many more of them went into these fields in the army, either from choice or from selection. When those who were in military laboratory service were discharged from the army, many of them believed that it was an opportune time to switch from the laboratory to clinical fields.

This choice was made in many instances because of the meager financial returns in laboratory work. The financial remuneration of the clinician, who stands next to the patient's pocketbook, is so much greater than that of the laboratory man, who is several removes therefrom, that, unless the laboratory man is convinced that he has not the capacity for clinical work, or is so much interested in the scientific side of medicine that he prefers laboratory work with all of its disadvantages, he is almost certain to drift into clinical surgery or medicine.

The change from military to civil life furnished the break for which many laboratory men were waiting. Today the country is seething with would-be surgeons who have just come out of the army. A few are going into internal medicine, but practically none into laboratory positions. As a result, every laboratory director has on his desk a stack of requests from hospitals and teaching institutions for recommendations of men to fill laboratory positions, and he knows of none to recommend who will take the positions.

Laboratory Consultants Essential

It has now been demonstrated, apparently beyond peradventure, that the well trained laboratory man is an absolute necessity in every sizable, honestly conducted hospital. No way has been found for him to receive his pay directly from the patient, even in pay hospitals. He should not work for charity, even in charity hospitals. It remains, then, only that the laboratory positions in hospitals shall be endowed, and the endowment shall be adequate to lure into and hold in laboratory work the best minds in the medical profession. The laboratory officer of little experience or weak personality is apt to become only an opinionless technician for the clinician, a condition which frustrates the chief objects of the laboratory, namely: experienced consultation with the clinician concerning disease processes present in the living patient, and thorough and fearless review of the diagnoses and treatment of all patients who die.

To be worth anything, the head of a hospital laboratory must be much more than a technician. He should be the real inspector of the other professional services. He must have opinions. To have opinions that are worth anything, he must have independence. To have independence, he must have a good living, and his remuneration must be great enough to hold him in the laboratory as a life job. If all hospitals of 200 beds or more would endow the position of chief pathologist with from $6,000 to $10,000 a year, with proportionate salaries for assistants and technicians, and with an adequate budget for supplies, it would be but a short time before the laboratory branches would contain enough high class young men to perform adequately the important professional functions of the ideal hospital laboratory head. Let us hope that 1920 may see some decisive steps taken by large hospitals to bring about this desired result.

HEALTH PROGRESS IN INDUSTRY IN 1919

By BARROW B. LYONS, Editor, Health and Modern Industry Department, THE MODERN HOSPITAL

THERE is nothing more notable in the development of industrial medicine during the past year than the very greatly increased interest in the subject among medical men. In almost every industrial town in the country some physician or surgeon begins to stand out prominently as the one most competent to handle industrial accident cases, and in a number of the large cities there are to be found men who have developed a more or less extensive service through which varying types of industrial, medical, and surgical assistance is rendered by a group of men. Sometimes such groups are in the form of a partnership, but more often are under the leadership of some medical man who possesses ability to organize and direct, an ability generally supposed to be rare among medical men. If as exceptional as is supposed, it is not unlikely that this is the case only because few "legitimate" opportunities have before presented themselves for exercising it.

New conditions, however, have opened up new opportunities, and today the most wide awake leaders of industry are searching for men who can organize a direct health work in industry, which calls for the highest type of leadership, great ability in securing cooperation of all branches of industry, and unusual administrative genius. It is as yet impossible to gauge accurately the development in this direction, but any one in touch with the industrial health movement must be impressed by the growing number of physicians and surgeons who are being attracted to these problems in industry, and the rapidly increasing demand among intelligent employers for the new service that is being offered.

As a result, the financial attractions in rendering service in this direction have increased. This is evident by the success of a firm of industrial physicians and hygienists which was organized during the past year in a middle western town, and which specializes in rendering advice in industrial health matters. When a commercial enterprise decides to establish a health or hospital service for its employees, it may consult this firm as to plans and methods. This firm will plan industrial hospitals and dispensaries and install them; it will organize record systems, and develop plans for making the work effective, but it does not undertake to administer the departments which it organizes.

In order to meet the growing demand for industrial surgeons, post-graduate courses in Industrial Medicine and Hygiene have been developed by a number of the leading medical schools during the past year, among them being Harvard University, Pennsylvania, Cornell, Columbia, Ohio, Rush Medical, University of California, and University of Cincinnati Medical College. When this is considered in relation to the ultra-cautiousness of such conservative organizations, this is a truly remarkable development, and reflects most intensely the interest in industrial medicine mentioned in the first paragraphs of this review, which interest is increasing so fast that its growth is difficult to measure. While these courses were developed partly because of the request of the Division of Industrial Medicine and Hygiene of the now defunct Working Conditions Service of the Federal Department of Labor, this request was based upon a very large demonstrated demand. In order to meet this demand, the Division of Industrial Medicine and Hygiene of the Working Conditions Service started an information bureau to put industrial medical men in touch with opportunities for service, but it was unable to find a sufficient number of qualified men to meet the demand.

Much has been written during the past year about the failure of existing facilities properly to care for industrial accident cases. There is no question that the service rendered by many hospitals and individual surgeons is far below the best standards. In a paper read before the sixth annual meeting of the International Association of Industrial Accident Boards and Commissions, held at Toronto, Canada, last September, Dr. Otto P. Geier, director, Employees' Service Department of the Cincinnati Milling Machine Company, pointed out that:

"The medical department of each industrial commission must be given adequate funds, sufficient power and personnel, so that all of the work done for the commission may be carefully analyzed, to the end that the incompetent will no longer be permitted to attend the industrially injured.

"Only in disputable cases," he said, "does this staff (that of the industrial accident board) come in contact with the surgeon or physician who is rendering the bills for his service. Because of this long-distance, utterly inadequate appraisal of the surgical field of work, because of this entirely impersonal relation that exists between the surgical staff of the commission and the surgeon or

physician who attends the worker, there has grown up a more or less cold-blooded comptometer method of arriving at a decision as to whether this bill or that bill for services rendered shall be allowed or shall be reduced. As things are today, a premium is almost set upon securing low grade, cheap service by the employer or insurance company. . . . Along with the establishment of a strong, highly intelligent, medical directorship, there will be developed district medical supervisors, who may come closely and quickly in contact with surgeons in the field attending the injured, and who may assist the employer as well as the employee in seeking only the best service of that kind."

As a logical outgrowth of the idea of an industrial accident service, a number of new industrial hospital enterprises have been planned during the past year. The most comprehensive one that has come to my attention is a hospital planned in Baltimore by five manufacturing establishments located not far from each other, each of which employs more than 5,000 persons. These concerns plan to construct cooperatively a hospital of 200 beds for their employees and the employees' families. There are to be no wards, all private rooms; in connection with the hospital is to be an elaborate dispensary for the workers and their families, a visiting nurse service, and a corps of social workers. In addition to these things, it was originally planned to have an auditorium for lectures, through which employees and their families might be educated to more healthful living.

The organization of an industrial hospital financed and controlled by a number of the labor unions was also proposed in New York. Some of the richest unions were considerably interested in the plan, and still have it under consideration.

Public Must Be Educated

On the other hand, employers are more and more beginning to realize the value of more scrupulously safeguarding and even cultivating the health of their employees. It is difficult, nevertheless, to convince many of this need. Before they will be convinced, they demand statistical evidence of the dollars and cents benefits to them. Unfortunately, complete evidence of this kind is impossible to obtain and partial evidence is very rare, and when existent, is often too closely guarded. Men of broad judgment and vision do not need such evidence. The logic of the proposition and such opinion as has been expressed by industrial leaders who have made the experiment are sufficient to convince them. Some of the most conservative manufacturing enterprises in the country are "plunging" heavily in this sort of investment.

The funds now available to the Federal Government are far short of what they should be for a vigorous development of industrial health research. The present Congress did not think that there was sufficient need for the splendid service which the Division of Industrial Hygiene and Medicine was organizing, so it did not appropriate funds for the continuation of the work. The functions of this department were entirely taken up by the Public Health Service. All branch offices but the New York office, however, had to be given up because of lack of funds, and the work of advising industries desirous of improving the health conditions under which their workers labor, and of nation-wide educational work being planned, had to be abandoned. It is greatly to be hoped that funds may be found for this extremely important work.

What the Government Is Doing

The most comprehensive study of work being done in industrial plants which the government has published is *Public Health Bulletin No.* 99, entitled "Studies of the Medical and Surgical Care of Industrial Workers." This was prepared by Dr. C. D. Selby, as consulting hygienist to the United States Public Health Service. This pamphlet contains a very well worked out series of forms which may be used for the different phases of health work in factories and shops. It gives plans for plant dispensaries, hospitals, and examining rooms, and makes very many practical suggestions.

The United States Public Health Service has planned a very ambitious industrial program in spite of its lack of funds. It consists of the following proposals:

(1) Continuing and extending health surveys in industry with a view of determining precisely the nature of health hazards and the measures needed to correct them.
(2) Securing adequate reports of the prevalence of disease among employees and the sanitary conditions in industrial establishments and communities.
(3) National development of adequate systems of medical and surgical supervision of employees in places of employment.
(4) Establishment by the Public Health Service, in cooperation with the Department of Labor, of minimum standards of industrial hygiene and the prevention of occupational diseases.
(5) Improvement of the sanitation of industrial communities by officers of the

Public Health Service, and cooperation with state and local health authorities and other agencies.

(6) Medical and sanitary supervision by the Public Health Service of civil industrial establishments owned or operated by the Federal Government.

In commenting upon this program Dr. J. W. Schereschewsky, assistant surgeon-general of the United States Public Health Service, points out that "what we need is not so much an extension of Federal authority in health matters, as the development of a sense of responsibility for good health conditions in the people of the state and locality."

Local Efforts in Health Work

So far as local health departments are concerned, the Department of Health of the City of New York, as far as the writer knows, has taken the farthest step in cooperating with local industries in the health interests of the workers. The following announcement appeared in the issue of the *Weekly Bulletin* of that department, dated December 6, 1919:

The Division of Industrial Hygiene Offers Special Services to Employers

The Department of Health announces that its Division of Industrial Hygiene is prepared to undertake a sanitary survey of factories, mercantile establishments, or office buildings, for the purpose of ascertaining any conditions which might impair the health of workers or prevent full return from services of employees. Establishments desiring these surveys will please communicate with the Superintendent of the Division of Industrial Hygiene, at 505 Pearl Street, Manhattan, who will make the necessary arrangements for such service.

Where a large group of employees is concerned, special clinics will be established for the purpose of making physical examinations, and those employees whose health is found to be affected will be advised and also will be visited in their homes to ascertain if conditions there affect their health or efficiency adversely.

The surveys will be complete in all respects as relating to the industries concerned, and on their completion a special report will be made.

In addition to the making of such surveys, the superintendent of the Division of Industrial Hygiene is anxious to confer with those interested, by letter, telephone, or personal appointment, for the purpose of giving any needed advice, as regards sanitary industrial standards, and measures for the prevention of occupational diseases.

Progress in Industrial Nursing

Industrial nursing, as well as the practice of medicine in industry, has taken very considerable strides. The experience in Massachusetts has been extraordinary, when considered in the light of the progress of the past. Under the heading of "Progress Made in Industrial Nursing in 1919," Mrs. Anna M. Staebler, R.N., executive secretary, Massachusetts Committee on Health in Industry of the Boston Association for the Relief and Control of Tuberculosis and Massachusetts Tuberculosis League, writes:

There has been a marked increase during 1919 in the number of industrial nurses employed in Massachusetts. This increase is due to an awakening on the part of the employer, because he knows that the supervision of the health of his employees counts for economy. The number of industrial nurses has been increased by approximately fifty-five during the past year.

Our Association has recently been asked to appoint a representative to act on the Industrial Committee of the National Organization for Public Health Nursing and to send a representative to the annual meeting to be held in Atlanta, in April, in order to help in the organization of an Industrial Nursing Division of the National Organization.

Legal Advances in 1919

A very careful review of changes in workingmen's compensation laws, and in progress along the lines of health insurance is presented in the *American Labor Legislation Review* for December, 1919, published by the American Association for Labor Legislation. This summarizes the subject under the title of "Social Insurance" as follows:

Employers' liability laws were extended in three states, and the solicitation of claims was prohibited in Oregon. Four new workmen's compensation acts were passed, that of North Dakota being compulsory and those of Alabama, Missouri, and Tennessee being elective. Only six southern states are now within this type of legislation. In more than thirty states and Congress existing compensation acts were amended, in most cases extending the scope of the act, increasing the scale of indemnity, reducing the waiting period, extending the provisions for medical care, making special arrangement for compensation for second injuries, or bringing private casualty companies doing workmen's compensation business under more careful control.

Fourteen American compensation laws are now compulsory. Eight, including the new acts in Missouri and North Dakota, base compensation on 66 2/3 per cent of wages, four on 65 per cent, ten on 60 per cent, and four on 55 per cent. Connecticut and Wisconsin extended their laws to cover occupational disease. Kansas, Missouri and Ohio permitted blind persons to waive claims to compensation for injuries caused by their blindness, and Minnesota made it illegal to discriminate in insurance rates against the handicapped. Eight states made provision for vocational rehabilitation of industrial cripples, including acceptance in some cases of the terms of the federal law enacted this year authorizing government aid to states conforming to certain standards. The governor of Arkansas was authorized to appoint a commission to draft workmen's compensation legislation. Pennsylvania provided for printing the report of the health insurance commission. Old age pension systems for public employees were authorized in California, Connecticut, Maine. and Minnesota, and existing provisions were amended in Massachusetts and in one or two other states. California and Oregon urged Congress to pass the federal employees' pension bill, and Wisconsin established a commission to

study pension systems and make recommendations. Indiana created a commission to investigate "child welfare and social insurance," and report, with bills, to the next legislature. Oregon urged returning soldiers and sailors to keep up their war risk insurance.

The publication previously quoted sums up legislation along the lines of "Safety and Health" in the following extract:

Congress through the taxing power set a minimum age of fourteen for the employment of children in factories, and sixteen in mines and quarries. More than a dozen states adopted laws prohibiting the employment of children in certain occupations as in mining (New Jersey and North Dakota), or raising the minimum age, educational, or physical requirements for children in general, factory, or mercantile occupations (California, Missouri, Montana, North Carolina, Porto Rico, West Virginia). Provisions for physical examination of children and issuance of employment certificates were strengthened in nine states. New York restricted the employment of women on local traction lines and on elevators, and Ohio forbade their working at certain hazardous employments, such as railroading and lifting weights of more than twenty-five pounds. Missouri prohibited industrial employment of women for three weeks before and three weeks after childbirth. California empowered the industrial accident commission to forbid the use of unguarded machinery or unsafe workplaces. Provisions for shower baths, wash rooms, drinking fountains, and the like, were adopted or amended in six states, and the same is true of rules for fire protection in four states. Connecticut required employers to furnish devices for threading shuttles to avoid use of the operatives' lips or mouths, and Indiana required gas masks in workplaces where dangerous fumes are present. Removal of coke fumes was ordered in Ohio, which also adopted a factory lighting code.

Existing factory and mercantile inspection statutes were extended in half a dozen states, and Nevada enacted a general shop safety law. Minnesota and Missouri strengthened their accident reporting laws. About a dozen states amended their mine inspection statutes or provided for mine rescue work. Michigan and Ohio dealt with warming vestibules or the height of couplers on interurban lines, while North Dakota enacted a railroad full crew law and required shelters for repair work. Bunks, baths, and other conveniences were specified for labor camps in California, six states provided for safe construction, maintenance, and operation of boilers, and five states established safety standards for building construction. Electrical installation was regulated in Oregon. Alabama permitted the employment of boys under fourteen as pages and messengers in the legislature.

Bitter Controversy Over Health Insurance

Perhaps the most important legal phase of industrial health progress during the past year has centered around the battle in a number of states over health insurance. Backed by powerful propaganda supported by the commercial insurance companies a great majority of the rank and file of the medical profession has stood solidly against the proposed legislation. Their great fear has been financial loss, based upon the early experience in Great Britain. The opponents of Health Insurance seem to have lost sight of the final report of the Committee of the British Medical Association which showed that, upon the whole, Health Insurance had increased the income of the British practitioner.

The most appealing argument used against Health Insurance laws is that they would "socialize" the profession. This appeal has created a terrible frenzy within the past year among groups of American physicians to whom the subject cannot be mentioned without a violent outburst. A fair sample of this feeling is expressed by Dr. William P. Cunningham of New York in an issue of the *New York Medical Journal* early last year.

"Thus it is," decries Dr. Cunningham in describing the attitude of some of the leaders who favor Health Insurance, "that we have the amazing spectacle of our Rockefellers and our Lamberts and our Goldwaters striving with the infatuation of the veriest soap box orators to advance the standard of the red flag internationalism. In so far as they can, they urge the adoption of certain specious features of the abhorrent doctrine under the pretense of ameliorating the condition of the masses. As class conscious as the wildest social revolutionists they would legislate for the 'laboring class.' * * * The defeat of the insidious Socialistic infiltration is the greatest duty of the thinking man today."

The case for or against Health Insurance need not be stated here; it is sufficient to point out the intensity of feeling over the subject and the rather unbridled manner of expression of it which has lately developed.

The work has been given a very important stimulus by the entrance of two new publications into this field. *Modern Medicine*, printed by the publishers of THE MODERN HOSPITAL, appeared last April, and *The Journal of Industrial Hygiene*, published by The MacMillan Company, was presented to the public in May. There have also been a number of new books published covering various phases of the subject. *Bulletin No.* 36 of the Russell Sage Foundation, published in August, contains a selected bibliography on the subject of "Industrial Hygiene."

Col. Harry E. Mock, president of the American Association of Industrial Physicians and Surgeons, sounded the inspirational keynote of the movement in his opening address at the annual meeting of the Association at Atlantic City last June. He declared that the time had come, if we are to build a true democracy for industrial leaders, to lay aside the selfishness and ruthlessness which has to a large extent typified the development of industry in the past, and to assume a new attitude of consideration and responsibility for the welfare of industrial workers.

PROGRESS IN MENTAL HYGIENE, 1919

By FRANKWOOD E. WILLIAMS, M.D., Associate Medical Director, The National Committee for Mental Hygiene

Progress in mental hygiene, handicapped for many years by restrictive commitment laws in the case of psychoses patients, and by lack of commitment laws in the case of the feebleminded, has been stimulated through the war. The development of the neuro-psychiatric service of the army proved psychiatry a pragmatic and dynamic science. Public interest has manifested itself in the establishment of psychopathic hospitals, institutions for the feebleminded, out-patient neuro-psychiatric clinics, societies for mental hygiene, and divisions of mental hygiene in the Departments of Health of two states.

WHEN the first hospital for mental disease was opened in this country early in the nineteenth century admission to it was as unincumbered with formality as admission to any other hospital. This is a fact apparently not generally known. Admission to these hospitals remained more or less informal for a period of almost fifty years when through a variety of circumstances confidence was replaced by distrust and there was gradually built around the hospitals restriction after restriction until at the end of twenty years it was much easier to be admitted to jail than to a hospital for mental disease. These restrictions so handicapped the hospitals that constructive work became almost impossible. If hospitals for tuberculosis, for example, were permitted to admit for treatment only patients in the chronic stages of the disease, they would soon be able to do little more than provide custodial care. In mental disease, as in other diseases, hope lies with the acute patient, or, better still, with the patient in the prodromal stage and a hospital that is barred from receiving patients in these early stages cannot render a maximum service in the treatment of disease. But these restrictive laws spread from state to state until the doors of practically every mental hospital in the country was barred to those patients who, from a treatment standpoint, needed them most.

The pendulum started swinging again in 1882, and since that time many states, notably Massachusetts and New York, have largely rewritten their insanity laws, again giving patients access to the hospitals at a time when something of accomplishment may be hoped for. But progress in the field of mental hygiene must still be measured in part, unfortunately, in the increase in tools and facilities for work—hospitals and the accessibility of hospitals. The psychiatrist counts as important ground gained any definite steps taken to substitute for those restrictive laws, laws that reflect present-day knowledge of the nature of mental disease and that provide adequate facilities for treatment in the light of this knowledge. No account of the progress of a year would be complete that did not record these changes.

Legislation

In a number of states in which legislatures have recently met important changes in the insanity laws have been made. In Indiana, Oregon, Maine, New Jersey, Kansas, and Tennessee, it has been made possible for a citizen desiring treatment to be admitted to a hospital voluntarily with no more formality than the signing of a paper asking for admission. Massachusetts was the first state to open the doors of its hospitals to voluntary patients. The Massachusetts law was passed in 1882 and in the past thirty-seven years has proved to be most useful. A law providing for temporary care for observation has likewise been found useful. Physicians and friends of patients are frequently puzzled as to the real nature of a patient's symptoms and the best course to pursue under the circumstances. They are not ready to swear before a court that the patient is "insane" and ask that he be "committed," but they do desire the advice of experts that might come as the result of a temporary period of observations in a hospital. Formerly such procedure was denied them and not until the patient's disease had progressed sufficiently to warrant his being called "insane" and clearly "committable" could hospital treatment be obtained. Massachusetts enacted a law in 1909 that provides temporary care for such patients on the application of physicians and others and without the formality of court procedure. Other states have made similar provision from time to time. At the last legislative sessions such provision was made in Indiana, Maine, and Tennessee. The Mississippi Legislature now has before it a bill presented by the Mississippi Mental Hygiene Commission which substitutes for the present insanity law a modern law carrying provision for

both voluntary and temporary care. This bill, which is a long step forward, has received the informal approval of the retiring governor and of the new one who was recently elected.

The most important hospital established during the year has probably been the new Psychopathic Hospital at Iowa City. This hospital is organized as a part of the medical department of the University of Iowa and will offer not only facilities for treatment but facilities for teaching and research.

The legislature of Colorado has authorized a psychopathic hospital for Denver, to be built as a part of the University of Colorado. A bill authorizing the construction of a psychopathic hospital in San Francisco, passed by the California Legislature, was vetoed by the governor. It is likely that a bill will be introduced at the next session of the Indiana Legislature, authorizing a psychopathic hospital in Indianapolis. Construction has begun on a new state hospital in New York—the first in twenty years. Two new state hospitals are being completed in Pennsylvania, and one additional hospital has been opened in Illinois. Two new hospitals have been authorized in Texas, and one additional hospital in West Virginia. Increased interest in the treatment of patients with mental disease is shown in a number of other states. The National Committee for Mental Hygiene is at the present time conducting surveys in New Jersey, Missouri, and North Carolina, and in response to joint resolutions of the legislatures, invitations of governors or official bodies will undertake surveys during the year in Oregon, Washington, Idaho, Louisiana, and Rhode Island.

St. Rita's Hospital, Lima, Ohio, is a general hospital with a bed capacity of ninety-five, which opened last year. Meyer J. Sturm, Chicago, Architect.

The facilities of the country for the care of nervous and mental patients have been further in-

creased by the provisions made by the medical department of the Army and the United States Public Health Service. The Army maintains its neuro-psychiatric wards at five general hospitals —Walter Reed Hospital, Washington, D. C., Fort McPherson, Atlanta, Fort Sheridan, Chicago, Fort Sam Houston, Texas, The Letterman Hospital, San Francisco. The Public Health Service has established hospitals for mental patients at Dansville, N. Y., Park View, Hoboken, Pennsylvania, Norfolk and West Roxbury, the latter in Massachusetts, and hospitals for neuroses at Waukesha, Wis., and Cape May, N. J. Other hospitals for nervous and mental patients will be opened by the Public Health Service in the next few months.

The Feebleminded

Whereas the treatment of patients with psychoses has been handicapped by restrictive commitment laws, progress in the care of the feebleminded has been handicapped through lack of commitment laws. Recent social studies have shown the disproportionate part played by the feebleminded in the causation of these problems and it has become clear that adequate supervision of the feebleminded is necessary as a social as well as a humanitarian measure. The difficulty has been and still is, for that matter, the lack of institutions in which to care for the feebleminded—some states have made no provision, no state has made adequate provision—and the lack of authority to retain a feebleminded person in an institution should relatives or friends desire his discharge. As institutions and the authority of a commitment are essential in this matter, it is important to record that new institutions have been established or authorized in California, Indiana, Ohio, Kentucky, Wisconsin, Kansas, Florida, Minnesota, Louisiana, Texas, Delaware, Pennsylvania, South Carolina, Georgia, Alabama, and Arkansas, and that commitment laws have been passed in New York, California, Kentucky, Vermont, Kansas, Iowa, Montana, Delaware, Florida, Georgia, and Alabama. A commitment law is now before the Mississippi Legislature, presented by the Mississippi Mental Hygiene Commission and favorably mentioned by the governor in his inaugural address. Increased facilities, by additions to established institutions, have been provided in Illinois, Ohio, New York, and Maine. Progress has been made in the construction of the third school for the feebleminded in Massachusetts, authorized in 1915. The National Committee for Mental Hygiene has recently completed surveys in Georgia, Alabama, and Mississippi, and during the year will undertake surveys in Wisconsin, Missouri, and Maryland.

Probably the most comprehensive piece of legislation in regard to the feebleminded is the new mental deficiency law enacted by the New York Legislature. This law provides for a state commission for mental defectives, uniform commitment, voluntary admission, emergency care and parole of the feebleminded. Another important law enacted by a recent New York Legislature is the Lockwood law requiring the formation of ungraded classes in the public schools of all cities and school districts in which there are ten or more children three years or more retarded. Other significant legislation in this field has been important additional provisions to the Children's Codes in Missouri and Pennsylvania providing more adequate provision for unusual types of children; provision for mental examination of children in the juvenile courts in Iowa and North Carolina; the establishment of free mental clinics in Indiana and Massachusetts; and provision for the registration of the feebleminded in Massachusetts.

Out-Patient Clinics

One of the most significant recent developments in the field of mental hygiene has been the rapid increase in the number of community out-patient clinics in the country. A survey made in 1914 listed twenty-six clinics, and these mostly in New York and Massachusetts. A survey just completed by the National Committee for Mental Hygiene records 214 neuro-psychiatric clinics. The only states at the present time that have no community clinics of this type are New Hampshire, Vermont, Delaware, South Dakota, Wyoming, New Mexico, Arizona, Nevada, Idaho, and Oregon. Many of these clinics have been established by state hospitals for the benefit of discharged or paroled patients who may come to them for advice, for the benefit of parents or school teachers who have to deal with unusual types of children, physicians who desire advice in regard to the diagnosis and treatment of patients, social agencies, and courts. Other clinics have been organized by chapters of the American Red Cross to assist them both in their soldier and civil problem, by social agencies, neurological hospitals and general hospitals. These clinics make expert advice accessible to all in the community who may need it, and it would be difficult to overestimate their importance.

Previous to 1917 there were few social workers trained in psychiatric work. The need for psychiatric social workers became so great during the war that an emergency course was estab-

lished at Smith College. Other courses were later organized in Philadelphia and New York. These workers are trained not only in social work, but are given in addition such instruction in psychiatry as will give them an intelligent understanding of the problems with which the psychiatrist has to deal, in order that they may be of assistance to him both in gathering social and personal information that will be helpful in giving a clearer understanding of the case, and in assisting the patient in making necessary readjustments under the guidance of the physician. The addition of these workers to the personnel both of mental hygiene and of social work has been distinctly helpful. At the present time the demand for these workers far exceeds the supply.

Coordinate with the movement to prepare specially trained psychiatric social workers has been a movement to provide more adequate instruction in social psychiatry for all social workers. The most significant advance in this respect has been the establishment of a Department of Mental Hygiene in the New York School of Social Work, with at least one course in mental hygiene required for graduation.

Uniform Statistics

Strange as it may seem, there is little reliable statistical information concerning the prevalence of mental disease in this country, due to the fact that until recently there has been no uniformity in classification or in recording data with reference to patients in hospitals for mental disease in the several states. Work in this special field was begun in February, 1918, by the National Committee for Mental Hygiene through its Bureau of Statistics. A new classification of mental diseases and an outline of a statistical system was submitted to the superintendents of hospitals caring for mental patients. Later, a manual was prepared containing definitions and suggestions for diagnosis and directions for the preparation of annual statistics. The manual and tabular forms for the compilation of annual statistics have been supplied without charge to all cooperating hospitals. Statistical record cards, to be kept on file at the hospitals, have been designed with especial reference to the tables and are being furnished to hospitals at cost.

At the present time 145 of the 156 state hospitals in this country have indicated their intention to join in the movement, as have also a number of other public institutions and private hospitals for mental patients. Reports that have been received in accordance with the uniform statistical system show marked improvement over former ones, and make it possible to use the data which they contain for comparative purposes. The system calls for special study of the new cases of mental diseases which are, after all, the only basis for determining the incidence of mental disease.

Societies for Mental Hygiene

Progress in mental hygiene does not come spontaneously, but, like progress in all other fields, comes as the result of organized effort. It is encouraging, therefore, to be able to record not only an increase in the number of organized mental hygiene societies, but an increased activity among the older societies. Societies for mental hygiene are now organized in twenty states. New societies have recently been formed in Maine, Georgia, Alabama, Mississippi, Tennessee, Kansas, and Oregon. The development of the work of state societies is shown by the employment of medical directors by the organizations in Connecticut, Massachusetts, Illinois, Pennsylvania, Maryland, and New York. These organizations are doing a valuable work in education, in the development of community clinics, in the care of discharged and paroled patients, in assistance to the Home Service Section of the American Red Cross and the United States Public Health Service in the care of discharged soldiers, in assistance to the public schools in dealing with unusual children, and to the courts, and social agencies.

The formation of the Canadian National Committee for Mental Hygiene marks a further growth in the mental hygiene movement. This organization has been of distinct helpfulness to the Dominion Government in providing care for the discharged Canadian soldier, and to the provincial governments in surveys of the care of the insane and feebleminded it has made throughout Canada. The Committee publishes a quarterly *Journal of Mental Hygiene.*

Public Health Organization

As a result of the neuro-psychiatric examinations in the Army, over 70,000 men were found unfit for military service. As these men, as well as those who developed neuroses and psychoses in service abroad, now have rights as governmental beneficiaries, the problem of the Public Health Service in the care of discharged soldiers becomes a large one. To assist the Service in its handling of this problem, consultant psychiatrists have been appointed in the various public health districts. Similar consultants have been appointed by a number of divisional headquarters of the Red Cross. By these appointments, expert advice is assured in a problem that might otherwise easily have got out of hand.

Probably the most significant development in official public health organization is the establishment during the year of a Division of Mental Hygiene in the Department of Health of the State of Connecticut, and a similar division in the Department of Health of the city of Newark, N. J. Connecticut is the first state to create such a division in its official health department, and Newark is the first city.

The years 1917 and 1918 saw the development of the neuro-psychiatric service in the Army. The effective work both at home and abroad of this division of the Medical Department brought forcibly to the attention of the country the fact that psychiatry today is no longer a static thing but a dynamic and pragmatic thing. The year 1919 has seen the demobilization of the neuro-psychiatric service of the army and the return of these medical officers to civil problems. In place of the former indifference, the returned psychiatrist is finding an increased public interest in and understanding and appreciation of his work. Were there nothing else to record, the year would have meant much in the history of mental hygiene.

PROGRESS IN OUT-PATIENT SERVICE DURING 1919

By MICHAEL M. DAVIS, JR., Ph.D, Director, Boston Dispensary

THE great war, with its infinite evils, has brought stimulation and progress to more than one branch of human endeavor. Medical science has been advanced by it and medical organization also. Thousands of physicians have become familiar with the work of hospitals and dispensaries who previous to the war were familiar only with private practice. Upon the dispensary the effect of the war has been like that of a series of electric lights which nursery gardeners put over their beds to stimulate the growth of the young plants. The war has been a forcing process for dispensaries in the United States, besides causing the establishment of large numbers of dispensaries in connection with military and relief work abroad.

Nineteen hundred nineteen, the year after the war, has given us time to notice and appraise some of these developments. Most striking has been the advance in the number of clinics or dispensaries treating syphilis and gonorrhea. Early in 1919 the United States Public Health Service published a list of venereal clinics in the United States, numbering then 302. This number was about twice as large as that recorded by the Committee on Out-Patient Work of the American Hospital Association in 1917, a growth of 100 per cent in two years. At the close of 1919 the United States Public Health Service has a list of 499 clinics in forty-six states, as follows:

Alabama	13
Arkansas	3
California	30
Connecticut	6
Colorado	6
Delaware	2
District of Columbia	1
Florida	9
Georgia	8
Illinois	25
Indiana	17
Iowa	6
Kansas	4
Kentucky	11
Louisiana	4
Maine	7
Maryland	8
Massachusetts	16
Michigan	12
Minnesota	5
Mississippi	6
Missouri	4
Montana	2
Nebraska	7
New Hampshire	2
New Jersey	11
New York	68
North Carolina	10
North Dakota	2
Ohio	26
Oklahoma	9
Oregon	1
Pennsylvania	100
Rhode Island	6
South Carolina	8
South Dakota	2
Tennessee	1
Texas	7
Utah	3
Vermont	1
Virginia	10
Washington	4
West Virginia	8
Wisconsin	8

Assistant Surgeon General C. C. Pierce, in charge of the Venereal Disease Division of the United States Public Health Service, writes:

"The most encouraging feature of the work is that with but very few exceptions, all clinics that have been established are still in existence and the number is increasing month by month. It might have been expected that, in carrying on an intensive campaign to interest as many as possible in venereal disease control work, local enthusiasts

would have caused clinics to be opened which would soon fail on account of lack of financial support or insufficient clientele. This has not, however, occurred."

Reports showing the number of patients treated during the year ending June 30, 1919 came in from 167 clinics. The total number of persons treated was 64,164. The total number of treatments given was 527,392. The clinics varied in size from small ones giving one thousand or so treatments in a year to very large clinics, indeed. One institution alone reported over 60,000 treatments, or more than 10 per cent of the total in these 167 clinics.

The venereal disease clinics are part of a national program. The administration of some is under federal, state or municipal authority. Many others are supported by private funds or maintained as special clinics in general out-patient departments or dispensaries treating all kinds of diseases. A rapid process of standardization is going on among venereal clinics, under the State Departments of Health, the United States Public Health Service, and the stimulus of private organizations such as the American Social Hygiene Association.

Child Welfare is another field of public interest largely promoted by the war, and has led to the establishment of many clinics for children. Some of these have been for the diagnosis and treatment of babies and young children, others for educational and preventive purposes only.

The twelve months beginning April 6, 1918, was designated as Children's Year and was a patriotic appeal for safeguarding children during the war. The results of Children's Year have been clearly stated in the last annual report of the Chief of the Children's Bureau, as follows: "It is obviously impossible to estimate the exact results of Children's Year. The result of the effort to save the lives of 100,000 babies cannot be known, even partially, at this time. What is certain is that the activities set in motion by that effort form a great, permanent and growing protection for infant life and will in time reduce our child deaths by many more than 100,000 annually. Millions of adults in this country have learned through the weighing and measuring tests alone that weight in relation to height and age gives a rough index to normal development; that hundreds of thousands of children are undernourished and suffering from other defects which are preventable or remediable; that child welfare is, in short, an important national problem."

Large numbers of the examinations made during Children's Year were performed at clinics. In California, for example, seventeen permanent county health centers were established for the child welfare, medical, and health work as a result of the examinations of over 40,000 children made by the physicians of the state.

Before the announcement of the Children's Year Campaign, seven states had child hygiene divisions. During 1918 five additional states provided child hygiene divisions; and during 1919 eighteen additional states have secured such divisions, making the present total of thirty states having child hygiene divisions. These child hygiene divisions will lead, and many have already led, to the establishment of many new children's clinics and babies' welfare stations. A report rendered by the Federal Children's Bureau says:

> New public health nurses and children's health centers have been reported from twenty-four states, with 137 nurses in ten of these states and 134 health centers where mothers may be given advice and instruction concerning the care of their children. Other centers for child welfare work, such as prenatal clinics, nutritional clinics, and milk depots, are logically developing around these health centers.

In still another branch of work we see large development. The National Committee for Mental Hygiene has just completed a study of the clinics for diagnosing and treating nervous and mental disorders. In 1914 this Committee had on record only twenty-six mental clinics in the United States. The survey recently completed shows 214 "organized neuro-psychiatric clinics, and about a dozen state and private hospitals, not having clinics, have agreed to treat discharged service men suffering from nervous and mental diseases. The increase in the number of clinics may be attributed to the increasing popular and official interest and realization of the importance of the mental hygiene problem, due partly to the increase of nervous and mental diseases incident to the war, not only the neuroses and psychoses in the soldier who has been at the front, but in those who have labored under the stress and strain incident to the war. The apparent increase of mental deficiency is due to the more accurate means of mental testing and the instituting of clinics in schools, courts and penal institutions.

"Many of the clinics have a highly organized social service department—an essential part of the clinic and a thing that has been given due consideration only within the past five years."[1]

Another development of much interest during the year was the announcement of a peace-time program of the National Red Cross. The development of health centers is one of the important features of the program and will undoubtedly prove a powerful stimulus to new dispensaries

[1]Quoted from private letter received from Dr. C. J. Dalton of the National Committee of Mental Hygiene.

and clinics of many types and to the better coordination of those already in existence. Noteworthy, also, during 1919 was the completion of a study of dispensaries in New York City, made by the Public Health Committee of the New York Academy of Medicine. Some results from this are likely to be apparent before the close of 1920. The survey revealed the amazing bulk of dispensary work in the metropolis, nearly one million and one-quarter persons being recorded as treated by 150 odd dispensaries of New York City during the course of the year. Towards the close of the year the American Hospital Association established a Service Bureau on the Dispensary and the Community Relations of Hospitals. The United States Public Health Service, which is charged with the responsibility for providing medical care for the five million beneficiaries of Uncle Sam's War Risk Insurance, has announced its intention of developing dispensary facilities to supplement the treatment now provided in hospitals under the charge of, or in cooperation with, the Public Health Service. The year 1920 thus opens with several important national organizations directly interested in dispensaries. The war upset the routine work of many well established dispensaries, but developed many more new ones than it upset. The period upon which we are now entering may be expected to manifest larger developments in the dispensary field than ever before.

DEVELOPMENTS IN DIETETICS DURING THE YEAR 1919

By LULU GRAVES, Home Economics Department, Cornell University, Ithaca, N. Y.

THE subject of nutrition and dietetics continues to hold a prominent place in the economic world, and the knowledge acquired the last few years continues, in a large measure, to be applied to a more intelligent manner of living and more rational dietary habits. Although conservation and other restrictions brought about by war conditions have been much modified, the lessons in health which were learned in this relation have not been so soon forgotten. As health depends to such an extent upon proper nutrition, and as both physical and mental efficiency depend so much upon health, this subject should be of vital interest to everyone.

The relation of nutrition and dietetics to health and efficiency is being more and more realized today. The work of the dietitian is being extended into the home as well as the hospital. The industrial world is also recognizing the value of the woman trained in dietetics.

These urgent calls for trained women necessitate a more extensive system of home economics training in our colleges, medical schools, and hospitals.

The recent war opened up a new field of dietetics, that of dietitian service in the army, which proved an important phase of the work.

Hospitals have for some time been progressing, slowly, to be sure, but none the less steadily, in this phase of medical therapeutics. Not until recently, however, has there been so much development along these lines in social welfare and industrial work.

Nutrition clinics or food clinics are being opened in a number of cities in connection with hospitals, dispensaries, and health departments. In those clinics which have developed sufficiently, or where the finances will permit it, a dietitian is included on the staff; in others this work is done by nurses. Many of the courses in welfare work which have been offered have included a limited amount of instruction in food and dietetics, and, as a result, dietitians are being called upon to teach classes, act as consultants, or help in other ways.

Reports from various organizations in which the nutrition clinics are already established have been given in the department of "Dietetics and Institutional Food Service" of THE MODERN HOSPITAL during the past year, including articles by Miss Lucy Gillette of the Dietetic Bureau, Boston; Miss Bertha Wood of the Food Clinic, Boston Dispensary; Miss Emma Winslow of the Charity Organization, New York City; Mrs. Mary L. Schapiro of the United Hebrew Charities, New York City; Miss Blanch M. Joseph of the Michael Reese Dispensary, Chicago; and Miss Nellie Sargent of the Wade Day Nursery, Cleveland.

Health Schools are being held in many states through the extension service of state colleges and universities, or in conjunction with the state department of health. In all of these the subjects of nutrition and dietetics are the prominent features.

In a paper read before the American Dietetic

Association in Cincinnati, Dr. William Walsh of the United States Public Health Service says: "While the medical experts can diagnose disease and direct remedial measures, the follow-up and practical execution of the dietetic measures indicated in remedial disorders can best be executed by women trained in nutrition, in cooperation with the interested women of the community. They are splendidly equipped to impart instruction in the elements of nutrition and meal planning to women and children, to educate mothers in the principles of infant feeding, and, in general, conduct an educational campaign in these matters so vital to the health and well-being of the community. They will, for instance, stimulate an interest in the health of children by tabulating increases in weight and give detailed directions for checking improper feeding."

Thus the work of the dietitian is being extended into the home. For a long time she was known only in the hospital. From the standpoint of the hospital, her work there is an important one, for the recovery of a patient from any ailment will be facilitated by food which is properly selected, properly cooked, and properly digested and assimilated, while in many instances the recovery of the patient depends almost entirely upon dietary consideration. From the standpoint of the individual, however, time spent in the hospital is comparatively short, and it is essential that intelligent supervision of the diet be extended into the home.

The Dietitian in Industry

The industrial world, too, is recognizing the value of the woman trained in food and dietetics. A number of commercial firms are placing women trained in those subjects in charge of their lunch rooms and in their welfare departments. They find that it pays financially, as well as in other ways, for their employees to have an adequate luncheon. The manager of a large manufacturing plant recently made this statement: "Previous to the time when we established a well managed lunch room for our employees, we found that the lowest ebb of their output was between one and three o'clock in the afternoon. Since they have had the privilege of a warm and better selected luncheon, we find no difference in results at that time of day."

With such positive evidence of the effect of one meal on the day's work, there can be no question of the vast difference which may be made in the industrial world by the improvement of the other two meals each day, and the subsequent improvement in habits of living.

The United States Rubber Company put a dietitian in charge of one of their lunch rooms in Naugatuck, Conn. The results were so gratifying that in less than three months she was given an advisory position in all three of their plants.

Two hotels have recently put women trained in home economics in charge of some part of their service, and others contemplate doing so as soon as women can be found for the places. Miss Harlean James and Miss Olive Davis have demonstrated in the government hotels at Washington, D. C., what can be done by the home economics woman in this line. Miss Rena Eckman is acting as buyer for the Foote Memorial Hospital, Jackson, Mich., and Miss Elva George is Supervisor of Buildings and Grounds at Barnard College, New York City. Both of these women are well known in hospital circles, Miss Eckman having been dietitian at Massachusetts General Hospital for some time and Miss George director of the Bureau of Dietitian Service in the Red Cross.

Need for Training Centers

With all these great and urgent needs for knowledge of food composition, nutrition, and dietetics, and particularly their relation to disease, we have also a need for some one to give accurate, reliable information about it. A few hospitals have helped very materially in offering to graduates in home economics a course in student dietitian training. Comparatively few hospitals are doing this, however, and as yet the training offered is, in most cases, meager and lacking in standards or system.

If the college, medical school, and hospital would unite in an effort to promote this training, it would be of great benefit to all of them, as well as to the general public, and both the medical man and the dietitian would be much better equipped for their work. In a small way, the hospital affords a connecting link between the other two institutions. It would seem desirable and logical for this to be developed into a strong educational work centered in the hospital.

A committee from the American Dietetic Association is now working with a committee from the American Home Economics Association on a course of training, especially for the dietitian, to be offered in colleges. Letters from this association are being sent to superintendents of hospitals for the purpose of finding out what may be done by hospitals to supplement the course suggested for the college. A survey has been made of hospitals offering student dietitian training, with the hope of getting some definite information about what is being done at present and to determine what can be done to make the student training more uniform.

Other activities of the association during the past year are:

(1) A committee is working with a representative from the Nurses' Association on the course in dietetics for nurses.

(2) Letters have been sent to the state Boards of Examiners for Nurses asking that dietitians be represented in the examination for dietetics. Many cordial replies have been received expressing a desire for this to be done, and in some states this action has already been taken.

(3) A mailing list of about 600 dietitians has been completed and is kept as nearly correct as is possible. All dietitians are requested to notify the Association of changes of address.

(4) A sort of Clearing House is being developed in order to be of help to the hospital superintendent wanting information in regard to dietitians or dietary problems, and to the dietitian in learning of positions available. This is not yet established well enough to render the service we should like, but with the aid of superintendents and dietitians it soon may be. During the past year about 150 hospitals and other institutions have been supplied with dietitians through this organization.

(5) A list of publications dealing with questions of interest to dietitians has been compiled. We should be glad to know of new books, pamphlets, or bulletins, which should be added to this list, and we ask that every dietitian let us know of anything she has found helpful.

The annual meeting of the American Dietetic Association was held in Cincinnati last September and proved to be an inspiration to all who attended. The proceedings of this meeting are now being prepared for printing and we hope soon to have them ready for distribution. Complete copies of all papers read at Cincinnati will be included in this bulletin as well as all business proceedings. Every one interested in any phase of dietetics should have a copy of this bulletin.

The field opening up for the consultant dietitian is too new to be discussed at this time, but a few medical men are demonstrating the advantages of an affiliation of this kind. The National Research Council has appointed a committee on nutrition. This committee is interested in the work of the dietitian and we anticipate some valuable suggestions as a result of its investigations.

The war recently ended is the first in which the services of a dietitian have been known. It has been repeatedly stated that no army of the future would ever be formed without including the dietitian. This is sufficient evidence that she was able to fill her place in this great conflict. Dr. John R. Murlin, who was director of the Division of Food and Nutrition, Medical Department, U. S. Army, in his paper read at Cincinnati on "What We Have Learned in Dietetics From the Army" tells of some valuable data obtained through the attention given to the dietary departments of the army hospitals. This paper was published in the January, 1920, issue of THE MODERN HOSPITAL.

Miss Happer, supervising dietitian of the army, gives the following report:

"The dietitian service is a comparatively new branch of the Medical Department, U. S. Army. At the beginning of the war there were no dietitians attached to the army hospitals, but at the close of the fiscal year, June 30, 1918, there were 164 dietitians in the service. At the time of the signing of the armistice there were 356 dietitians, —84 overseas, and the remaining 272 distributed among the 97 base, general, and post hospitals.

The Tennessee Coal, Iron & Railway Company conducts a hospital at Fairfield, Ala., which was opened in 1919 for industrial patients. Gustav W. Drach, Cincinnati, Ohio, architect.

"Up to date there have been 384 dietitians in the service. There were four deaths, two in this country, one in England, and one in France. Three dietitians received the British Medal, Member of the British Empire; two of the three mentioned and one other received the British Certificate of Merit.

When these women first arrived "over there" the British did not understand what a dietitian was, but you can see that the British appreciated them more than any other nation, at least they were the only nation to show their appreciation. At the present time there are 73 dietitians in the service, five of these having been reappointed. One new one has been appointed within the past few weeks and one more is to be appointed shortly. Within the last two months few hospitals were closed which furnished us any dietitians; hence the few appointments and reappointments.

"Early in November, 1918, a supervising dietitian was appointed and assigned to duty in the Surgeon General's office. Her duties include general supervision of the work of all dietitians, and she has charge of recruiting, assignment, transfer, and discipline of the dietitians; she also inspects the dietary departments of the army hospitals when necessary. At present this position is being put under the United States Civil Service Commission.

"At the beginning of the war the duties of the dietitians were not well defined. Regulations have since been made defining the duties and status of the dietitians, and providing for the appointment of head dietitians. The duties of the head dietitian are as follows:

"She is responsible for the planning of all patients' menus, but confers with the mess officer concerning market conditions before approving menus; reports to the chief nurse or ward surgeon deficiencies of service found in wards, in order that these may be corrected through proper channels; reports deficiencies of preparation and service found in mess hall and kitchen to the mess officer; inspects serving of food in all wards and has the responsibility of seeing that it is properly prepared; supervises and assigns the work of her assistants.

"The salary of the army dietitian is $60 per month with maintenance. At present the dietitian is entitled to the $240 bonus which has been granted to certain classes of civilians, and which is paid as a $20 per month increase in compensation to those who remain in the service. It is necessary that the dietitian be recommended by the Commanding Officer of the hospital where she is stationed in order to receive the said bonus.

"The requirements of the army dietitian are as follows: (1) An applicant to be eligible must have had at least a two-year course in home economics beyond High School grade; and this training shall have been supplemented by at least four months of practical experience in a general hospital (dietetic department). She must also be indorsed by the principal of the school from which she received her training, and the superintendent of the hospital where employed. Two other recommendations are required. (2) She should be between the ages of twenty-five and thirty-five and physically able to stand the work."

This new home for Columbia Hospital, Milwaukee, Wis., was opened last year. It cares for eighty patients. Richard E. Schmidt, Garden & Martin, Chicago, architects.

Unfortunately we have not been able to get much definite information about the work of the dietitian overseas, although we know that it deserves a prominent place in this report.

Plans are well under way for the next annual meeting of the American Dietetic Association. At a meeting of the executive committee held in New York City, December 27, it was decided that the invitation be accepted to furnish the program for one session of the meeting to be held at Lake Placid in May. This meeting is for the purpose of organizing a Bureau of Institution Research and the American Dietetic Association will have a part in that organization.

The decision was also made at this meeting to have the Association represented at the meeting of Home Economics in Cleveland in February, and at the meeting of the American Hospital Association in Montreal in October.

We feel that a foundation has been laid this year for some good constructive work in the future. The attendance and enthusiasm at the annual meeting, and the interest which is still being shown by large numbers of dietitians give us confidence to believe that a solid structure will be built upon this foundation.

A YEAR'S REVIEW OF DRUGS AND CHEMICALS

By JOHN K. THUM, Ph.M., Pharmacist, the Lankenau Hospital, Philadelphia, Pa.

In a review of the past year, so far as it relates to drugs and chemicals, and particularly as these articles bear on hospital work, one finds it difficult to make any positive statements. It is said that from the beginning to the close of the war the average advance in prices of one hundred items of which a close record was kept amounted to 200 per cent. Since the close of the war there has been a slight gradual recession of prices in general, yet some articles for which there is much use in medicine have advanced to unprecedented prices.

Among such articles might be mentioned asafetida, or gum resin obtained by cutting the rhizomes and roots of Ferula asafetida, or other species of this plant. These plants are native of eastern Persia and western Afghanistan, and the main point of exportation is Herat. The fact that it comes from the other side of the world and that transportation charges are unusually high and will be for some time, accounts for its present high price; this coupled with the fact that the stocks of this drug that were imported before we got into the war have all been used up, makes any immediate drop in price unlikely. At the present time the price of this drug is in the neighborhood of $6 per pound; before the war is could be bought for one-tenth that sum.

Munitions Plants Consume Glycerin

It is a source of great satisfaction to have the price of glycerin recede to somewhere near its former prices. At the beginning of the war, and even long before our country became involved, glycerin commenced to soar in price. This substance is an important ingredient in the manufacture of some explosives. As the war went on, the demand for death-dealing devices increased enormously, and naturally this constituent of vegetable and animal oils and fats became more and more diverted from medicinal purposes. In some hospitals this substance had been used routinely in enemas; and at or near a dollar a pound, and sometimes more, the monthly bill for glycerin would have assumed almost gigantic proportions. Fortunately, common-sense ruled, as it was observed that in the great majority of cases the use of glycerin could be omitted in administering enemas to patients.

Phenol, or carbolic acid, as it is commonly called, at the outbreak of the war immediately began to soar in price. This country had for many years obtained its supply from England and Germany. Hostilities were not long in operation when this source of supply was cut off. The former nation placed an embargo on phenol, and for reasons that are obvious Germany ceased sending this substance across the sea. She likewise placed an embargo on it. Carbolic is an important ingredient in the manufacture of trinitrophenol or picric acid, to mention it under a more familiar name. This is a powerful explosive. The war was not long in being before it became clear to observing people that it would be a long one, with all the resources of the combatants strained to the utmost. Such was the demand for this substance from the munition manufacturers that there was little left for surgical purposes, and it must be remembered that there was sore need of it for antiseptic and germicidal uses in connection with wounded soldiers. This restriction was really the main reason for the research that was undertaken at that time by army physicians for a cheap and efficient germicide, and the outcome was the famous Carrel-Dakin solution.

In the writer's recollection no pure carbolic acid was manufactured in the United States. This country placed no custom duty on it. It came in free; and the result was that while it was very low in price, duty-free carbolic acid prevented the development of the industry in this country. For various reasons we could not, under such circumstances, compete with foreign manufacturers of this really important compound. A short time after war was declared the price advanced from $0.14 per pound to as high as $1.50 and $2 per pound. At the time of the signing of the armistice the development of this industry in this country had progressed to such an extent that it could be bought for $0.60 per pound. In February, 1919, the price dropped to $0.44 per pound; March of the same year to $0.30; and in May it dropped to $0.18. This latter price may have been due to the fact that at the time of the signing of the armistice the government had in its possession 30,000,000 pounds of phenol that had been manufactured by our own industries, and which it disposed of to the distributors of this substance in the spring. At the time of writing this paper the price is $0.27 per pound, which may be regarded as a fair price. It is unlikely that this industry will continue to prosper without some tariff protection.

Opium, at the date of this writing, is listed at $9.85 per pound; one year ago it was selling at $33.15 per pound. Before the war it could be bought for as low as $7.50 per pound. Notwithstanding the present low price of this important drug, morphine, which is obtained from it, still keeps very high, although lower than at the same time a year ago, it having dropped about 26 per cent.

A year ago atropine sulphate was selling for $32.50 per ounce; to-day it is listed at $18.25. During the war it reached remarkably high prices. at one time selling for as much as $60 per ounce.

In a brief paper such as this must necessarily be, it is impossible to mention the changes in price of the thousand and one things that a modern hospital pharmacy must carry in stock; neither is it essential. Viewing the present situation *en masse* it is fair to say that conditions are gradually improving. Rapidity of improvement depends on increased production. And, as a well-known financier said recently, this can only be hastened by the peoples of the world learning to "work and save" as they never have before.

PROGRESS IN ERADICATION OF VENEREAL DISEASE DURING 1919

By ALEC N. THOMSON, M.D., Director, Department of Medical Activities, the American Social Hygiene Association, New York City

THE year 1919 has been one of marked progress in the general program for the eradication of venereal disease. New laws have been passed and others have become operative, making it essential for treatment to be taken, and, as a necessary corollary, to be provided. Facilities for treatment, however, have not kept pace with the requirements. This is true not only in the United States, but more or less throughout the world. A good many people think we are suffering from overlegislation. We are not suffering so much from overlegislation as we are suffering from lack of facilities to meet the requirements imposed.

Great progress has undoubtedly been made in depriving the incompetent physician and the charlatan of their victims. This has been accomplished by education. But there is no use in depriving the individual of his patent medicine or "quack" doctor without providing adequate facilities as a substitute.

Based upon the experience of the year, it would seem that sufficient stress has not been placed upon the need for educational work with physicians, dispensaries, and hospitals. The general scheme for venereal disease control is believed to be sound and has proved workable wherever given a thorough trial. While some of the measures applied to venereal disease are considered by many as experimental, they are not experiments in the true sense of the word, as they have been found practicable when applied to other communicable diseases. Success in the control of gonorrhea and syphilis will depend largely upon the thorough treatment of every case according to modern methods of procedure.

The United States Public Health Service has established a positive, workable *liaison* with state boards of health, and medical, dental, and allied schools and colleges, in addition to various associations and organizations, during the year 1919. Publicity has been a big feature in the year's work.

Approximately 100,000 placards calling attention to the danger of venereal disease were posted in railway coaches, Pullmans, and stations throughout the country. Educational pamphlets dealing with venereal disease and sex education, totaling about 14,000,000, have been issued by the Federal Government and various state and city health departments. This does not include some 2,000,000 pieces of educational material issued by the Public Health Service and the American Social Hygiene Association which were distributed by about 2,000 employers of labor.

The Public Health Service has obtained cooperation from all the states except Pennsylvania, Nevada, and the District of Columbia in the venereal disease campaign as required under the Chamberlain-Kahn Act (chapt. xvi, H.R. 12,281, effective July 1, 1918), which established a Division of Venereal Diseases of the Public Health Service.

One of the principal regulations established by the bureau in its cooperation with the state boards of health was that the state should require the reporting of venereal diseases. As with all new notification regulations, complete or reasonably complete reporting must be a development of the future. During the year very marked progress has been made, however, and

the tables show that from July 1, 1918, to September 30, 1919, 171,391 cases of gonorrhea and 128,751 cases of syphilis were reported throughout the United States.

How many hospitals have opened their doors to syphilis and gonorrhea during the past year is not known, although the barrier has undoubtedly been in part removed. It is significant that over 400 clinics are now in existence where treatment can be obtained by patients on a free, part pay, or pay basis.

General Educational Work

In general educational work on the subject of venereal disease, various lines of attack have been developed, such as instructing high school teachers and principals; reaching the male youth of the country, which is composed of approximately 16,000,000 boys between the ages of fifteen and twenty-one; spreading the message among the rural population by special adaptation of the general publicity campaign; conducting a special campaign in fraternal organizations and societies; pledging over 50 per cent of the druggists throughout the country not to sell venereal disease nostrums; securing elimination of the advertising of so-called quack doctors and patent medicines through cooperation of the newspapers; and enlisting the active support of many national and local organizations of women's clubs, business associations, labor groups, and the like.

In the professional press of the country an unprecedented amount of space has been given to the general subject of the control, diagnosis, treatment, and prevention of venereal disease. This applies to the professions of medicine, dentistry, pharmacy, nursing, and public health.

Cooperation of State Boards

If one thing more than another stands out in the work of the Public Health Service during the past year, it is that practically all state health officers have been brought heartily into the campaign. This work, of course, enabled the Public Health Service to pursue its most definitely defined functions, and the success which is accompanying the work of the various state boards of health and the cooperative spirit which they are manifesting toward each other and toward the Public Health Service is probably one of the most gratifying results of the campaign. It was no easy matter, with the well-known prerogatives, such as States' Rights, to bring forty-eight states into one general plan to fight venereal diseases. Different localities developed different problems, and the big task was to mold the Federal policy so that all states could reasonably conform.

One of the most important though less well known pieces of work the Public Health Service is doing is that concerned with the men in the American Merchant Marine. The Marine Hospital Service has always treated venereal disease and has for some time done a considerable amount of educational work among those seamen who come directly under their supervision. During the Spring of 1919 special effort was devoted to the control and prevention of venereal diseases through education and prophylaxis in addition to treatment. These men are situated in many ways like the soldiers and sailors were during the war, and their services have been equally valuable. They have been subject to exposure probably in a greater degree than any other one class, because they are constantly shifting from one port to another and have no means of continuing treatment at one clinic or hospital. The Public Health Service is undertaking to establish a competent venereal disease treatment center in all ports where these men may touch. Thus men who become infected in one port and apply for treatment there will be treated until the ship sails, whereupon they will be directed to the clinic at the next port of call where treatment can be obtained, and from there, in turn, they will be directed to the place of treatment at the next port. This plan, it is expected, will eventually cover the entire world and arrangements will be made so that the American Merchant Marine seaman will have the advantage of proper treatment, no matter where he is. This is possible. The Public Health Service has medical officers stationed throughout the world who will help to bring this about. Surgeons on many merchant marine vessels are being enlisted in the campaign and are being trained to give modern venereal disease treatment.

Training Social Service Nurses

During the year 1919, under the auspices of the Public Health Service, there have been graduated several classes of nurses trained in social service as it peculiarly relates to the control of venereal disease. These nurses are being placed with state boards of health, hospitals, clinics, Merchant Marine hospitals, and the like, to do the necessary follow-up work required in the efficient and successful management of a medical service specializing in gonorrhea and syphilis.

The first of these classes to complete the course was that of sixteen Public Health nurses who graduated in November, 1919. This special course included instruction at Columbia University, at the Bellevue Hospital, and at the New York School of Social Work. This instruction included social service, covering particularly field

work outside the dispensary with the families of the patient, as well as the medical side of venereal disease control.

The campaign of public information was inaugurated on the belief that nothing can be sold to the American public, whether it be soap, soup, or social hygiene, unless ground is first broken by publicity methods. Once the public is interested in a subject in a general way, it is possible to go ahead and sell them some particular brand. All of the campaigns undertaken have, so far as possible, been pointed towards the final use of mass education methods.

In summarizing the national work done in 1919, it is necessary to bear in mind that up to April 1 the work was done by the section of men's work of the Commission on Training Camp Activities. The principal civilian organization now carrying on this work in cooperation with the Government is the Department of Public Information of the American Social Hygiene Association. The work of the Commission was mainly the cleaning up of communities in cantonment areas which permitted the operation of redlight districts. This was, of course, purely a war activity, the main purpose of which was to protect our soldiers from venereal diseases. First of all. prominent citizens in the communities which were within a fifty-mile radius of all cantonments were circularized through a letter which described the work being done, and were asked for their cooperation. A surprising and most encouraging response was received. Clean-up campaigns were conducted in 500 communities. In some communities the work was carried out entirely by local organizations. In other communities the

Two new buildings have been erected and an existing residence remodeled at the Tulare-King's County Joint Tuberculosis Hospital, Springville, Cal., and were opened last year. Only tuberculous patients are received. There are forty-one beds in the additions. Miss Julia Morgan, San Francisco, Cal., architect.

Commission sent a representative to organize a committee and direct the campaign.

In these campaigns valuable ground for the venereal disease control movement has been won in every part of the country. Plain, practical publicity has hit hard at the redlight district. In community after community, these districts, the largest single source of venereal diseases, have been closed.

As the campaign developed in all its angles, industry became more and more interested, and, as the "Fit-to-Fight" slogan applied to the army, so did the "Fit-to-Work" slogan apply to industry. As a natural development, the venereal disease campaign was carried to all industries. By the summer of 1919, approximately 57,000 employers of labor had been reached, with the result that about 2,000,000 pieces of educational material were purchased for distribution among employees. Several hundred firms enlarged the scope of their medical services to include advice upon venereal disease, as well as diagnosis and treatment. Six of the nation's largest industries took up the work and developed the government plan in considerable detail. They made allotments for the work of venereal disease education and control just as they would for any other efficiency problem in the plant. Large venereal disease posters were prepared by their own staffs, and venereal disease pamphlets were translated into other languages for their foreign-speaking employees. The pamphlets were sent with the appeal to the employee to keep himself efficient, so that he would be fit not only for his own job but for that of the man above him.

The work of putting the message before as many groups as possible was continued throughout the year. General campaigns, modeled after the methods that were successful during the war, were carried on with certain state legislatures as well as professional and other groups.

Legislation on the subject of venereal disease control and prostitution was enacted or strengthened in three-fourths of the states during the 1919 session of the legislatures, largely as a result of the vigorous drive made by the Commissions on Training Camp Activities, the Interdepartmental Social Hygiene Board, and the United States Public Health Service. A bulletin entitled "Standard Forms of Laws" was issued and widely distributed. These laws included measures calling for the repression of prostitution in its many phases, the reporting of venereal diseases, and the providing of places of rehabilitation physically and mentally for delinquent women. Bills providing for appropriations for combating venereal disease have also been passed in about three-fourths of the states. The appropriations are those required under the Chamberlain-Kahn Act for the fiscal year ending June 30, 1920.

In some of the states representatives of the Law Enforcement Division of the Commission

were stationed to urge enactment of suggested legislation; in other states this work was done by representatives of the Public Health Service. In states where no representatives of the Public Health Service or the Commission were stationed, the lawmakers were reached by correspondence from Washington.

Many states have passed rules and regulations prohibiting advertisements relating to the treatment of diseases of the generative organs, and prescribing penalties.

Combating the Quack

Recognizing that newspaper advertisements of the so-called "quack" specialists for venereal diseases were one of the gravest obstacles in the campaign for the eradication of venereal disease, the United States Public Health Service sent a request to 20,000 advertising mediums in the country asking them to discontinue this class of advertising. Practically every one has agreed to do so. A large number of the newspapers have already found it good business to stop this class of advertising. It is now generally recognized that any "quack" advertisements appearing in print are an indication that the paper or journal carrying them is very much behind the times.

Newspaper Campaign

"The newspapers will not touch it,"—in the early part of 1919 we heard that sort of remark pretty often.

But the newspapers did touch it! They realized that the subject of venereal disease control in its various phases needed a bit of elucidation; they gave the public a lot of it during the past year, and it wants more!

Great dailies and country weeklies alike opened their columns to the subject. Maybe the public shivered and gasped, but it *read*—and there were no canceled subscriptions.

Work With the Doctors

The United States Public Health Service, through its Bureau of Venereal Diseases, during 1919 communicated with approximately 140,000 physicians and surgeons throughout the country, inviting their attention to the prevalence of venereal diseases and the importance of an energetic program for their control. The response was extremely gratifying, and about 50 per cent of them replied, asking for additional information. This work of the Public Health Service was followed up and supplemented by most of the state health departments, not only through calling the attention of the medical profession to the reporting regulations, but also by special educational work, including the distribution of a "Manual of Treatment of Venereal Diseases." There is no question that the physicians of the country during 1919 gave greater attention to venereal disease and recognized a very much larger number of

The Sarah A. Jarman Memorial Hospital, Tuscola, Ill., was begun in 1917 and completed last year. It takes all classes of patients, and has a bed capacity of twenty-eight.

cases than ever before; they also cured many cases that in previous years had been entirely neglected.

A campaign along publicity lines, putting the problem before the doctors in a new light and convincing them that the country at large was awake and interested in this particular situation, was carried on by the American Social Hygiene Association in the last quarter of the year 1919. It is well known that there is a percentage of doctors who do not treat these diseases and another percentage that regards them very lightly. Twenty-five thousand physicians, approximating the age group between thirty and forty years, were selected and sent a publicity letter outlining the American plan and enclosing a reply postal and a folder which especially emphasized the relation of the medical profession to venereal disease prevention. Over 20 per cent of the physicians replied, and as a result are in contact with advancement in venereal disease control. One of the results of this campaign will undoubtedly be the exercise of greater effort during 1920 to the end that every physician in the United States will receive more than one message from national organizations interested in the advancement of social, medical, legal, and recreational measures for the control and eradication of gonorrhea and syphilis.

On the foundation laid in 1919 there will undoubtedly be built an educational structure which, through the development of national publicity, will reach all groups and classes of people in the United States. Mass education is the foundation on which the final success of the campaign for combating venereal diseases must rest.

THE HEALTH CENTER MOVEMENT IN THE UNITED STATES

By JAMES A. TOBEY, Assistant to Director, Department of Health Service, American Red Cross, Washington, D. C.

THE following report contains in concise form the results of a study of the health center movement in the United States. The investigation has extended over four months beginning September 1, 1919. It is estimated that 75 per cent or more of all real health centers in this country are included and while there are undoubtedly some health centers not known to this department, the report may be considered as practically complete. For the purposes of this report a health center is defined as the physical headquarters of some productive form of coordination of the health agencies and activities in a community. Neither one clinic nor only one type of activity creates a health center, though, of course, it may be a commendable beginning for future expansion and development.

A health center, as defined by the Department of Health Service of the American Red Cross, is a physical center of some productive form of coordination of the health agencies and activities of a community.

In the recent study of the health center movement, the Red Cross assembled valuable data concerning the relative progress of the various states in this movement. Eighteen states have established health centers.

Reliable information concerning types, distribution, functions, administration and status of the various health centers is herewith set forth.

The chairman of the Central Committee of the American Red Cross sent out a letter to all state and provincial health executives in the middle of September, 1919. This letter outlined briefly the Red Cross public health policy and requested information as to existing health centers in the various states. A mimeographed copy of the Health Center pamphlet was enclosed. In the middle of October, 1919, the assistant to the chairman sent another letter to the same parties enclosing the printed pamphlet on health centers. Since few replies were received and meagre information resulted, a third letter was sent in the middle of November to those states from which no answers had come and which were likely to have health centers. Twenty replies were received to the first letter and fifteen to the third, so that thirty-four of the forty-eight states (70 per cent) and the District of Columbia have been heard from. Information about states not heard from has been acquired from other sources. A questionnaire was then sent to local authorities whose names had been submitted by the state officials and who could not be visited personally. Thirty-five of these questionnaires were sent out at various times and so far replies have been received from 20 of them. During the first two weeks in October, Mr. Calver of the Red Cross visited six health centers in New York and during the last two weeks in November he visited eleven existing health centers and three communities where they are planned in New York, New Jersey, and the New England States. Other information has been gathered from newspapers, magazines, by correspondence, and by conferences.

Results of Investigation

1. *Number of Health Centers*: There were on January 1, 1920, seventy-two health centers in forty-nine communities, seven cities having more than one. Of these forty-nine communities, forty-six have a population of over 8,000, which is about 6 per cent of the 779 communities in this group (1917 estimate). There were thirty-three health centers proposed or planned for twenty-eight communities, only one community planning for more than one health center. The total of existing and proposed health centers was 105 in seventy-seven communities, seventy-four of which are places greater than 8,000 population or about 9 per cent of the total of such communities in the 1917 census estimate.

2. *Types of Health Centers*: Two distinct types are found, that in the smaller community where all activities are centralized in one health center, and that in the large cities where activities are carried on through several health centers in different parts of the city. The first type may be further divided into those which serve rural conditions and those serving urban communities.

3. *Distribution by Population:* The largest number of health centers occurs in two distinct population groups. Thirteen of the communities having

Existing Health Centers—January 1, 1920

Place	State	Population	Auspices
Fort Smith	Arkansas	29,390	City
Hot Springs	Arkansas	17,690	City
Little Rock	Arkansas	58,716	City
Alameda County	California (3)	285,330*	Public and Private
Pasadena	California	48,620	City
Bridgeport	Connecticut	124,724	City
Creston	Iowa	101,040*	Public and Private
Lawrence	Kansas	13,477	Red Cross and City
Topeka	Kansas	49,538	Public and Private
Louisville	Kentucky	240,808	City
Alexandria	Louisiana	16,232	State and City
Augusta	Maine	14,325	State and City
Bangor	Maine	26,958	State and City
Bath	Maine	9,396	State and City
Gray	Maine	6,440*	Red Cross
Portland	Maine (3)	64,720	Red Cross
Waterville	Maine	12,903	State and City
Boston	Massachusetts	767,813	City
East Boston	Massachusetts	c 60,000	Private
Brighton	Massachusetts	c 20,000 (?)	Private
Framingham	Massachusetts	14,149	Private
Hyde Park	Massachusetts	c 20,000	Private
Norwood	Massachusetts	9,862	Private
St. Louis	Missouri	768,630	
Manchester	New Hampshire	79,607	City
Newark	New Jersey	418,789	City
Bridgeton	New Jersey	14,425	Red Cross
Buffalo	New York (5)	475,781	City
Binghampton	New York	54,864	Public and Private
Brooklyn	New York (2) over	100,000	Private
Dunkirk	New York	21,311	Public and Private
Oswego	New York	24,219	City
Poughkeepsie Township	New York	c 500*	Private
Riverdale	New York	c 2,000*	Private
Schenectady	New York	103,774	City
Watertown	New York	30,404	City
Canton	Ohio	62,566	Private
Cincinnati	Ohio	c 15,000*	Social Unit
Cleveland	Ohio (7)	692,259	City
Portsmouth	Ohio	29,356	Private
Harrisburg	Pennsylvania	73,276	Red Cross and Public and Private
Philadelphia	Pennsylvania (8)	1,735,514	City
Providence	Rhode Island (2)	259,895	Public and Private
Jefferson County	West Virginia	34,306 (1916)	Red Cross
Green Bay	Wisconsin	30,017	Red Cross and Private
La Crosse	Wisconsin	31,833	Private and Public
Milwaukee	Wisconsin	445,008	County and Private
Oshkosh	Wisconsin	36,549	City
Richland County	Wisconsin	18,318*	Red Cross

Totals: 72 health centers; 49 communities

Unless otherwise noted, populations are those estimated by the Bureau of the Census for July 1, 1917. Those marked * are as given by the local authorities; "c" means "about." Areas are those given by the Bureau of the Census for July 1, 1916.

Proposed Health Centers—January 1, 1920.

(About ready to begin operations)

Place	State	Population	Auspices
New Haven	Connecticut	152,275	Public and Private
Norwich	Connecticut	21,923	Red Cross
Decatur County	Indiana	18,793	Red Cross
Kenton County	Kentucky	17,464 (1916)	Red Cross
Scott County	Kentucky	16,956 (1916)	Public and Private
Rockland	Maine	8,189	Public
Somerville	Massachusetts	88,618	Red Cross, Public and Private
Jamaica Plain	Massachusetts	c 20,000 (?)	Private
St. Joseph	Missouri	86,498	Public and Private
Nashua	New Hampshire	27,541	Red Cross
Millville	New Jersey	13,813	Red Cross
Elmira	New York	38,272	Public
Gloversville	New York	22,314	Public
Glens Falls	New York	17,160	Public
Hornell	New York	14,857	Public
Ithaca	New York	16,017	Public
Little Falls	New York	13,653	Public
New Rochelle	New York	39,192	Public
Olean	New York	16,927	Public
Troy	New York	78,094	Public
Utica	New York	87,401	Public
Wells County	North Dakota	13,204 (1916)	Red Cross
Cincinnati	Ohio (6)	414,248	City and Red Cross
Indiana County	Pennsylvania	81,080 (1916)	Red Cross
Kingsport	Tennessee	.....	Private
Norfolk	Virginia	91,148	Public
Wausau	Wisconsin	19,666	Public and Private
Stoughton	Wisconsin	4,761*	Red Cross

health centers are in the 10,000-25,000 group. There are about 440 cities in this group in the United States and thirteen is about 3 per cent of them. Fourteen are in the group of over 100,000 population. There is a total of sixty-nine such cities and fourteen is about 20 per cent of them. The totals of existing and proposed health centers show this tendency even more strongly. Twenty-seven existing and planned health centers out of the total of seventy-seven occur in the 10,000-25,000 group. This is about 6 per cent of the total of 440 such communities. Sixteen fall in the over 100,000 group. This is about 23 per cent of the total of sixty-nine such places. The only other group having a marked number is the 25,000-50,000 group, which has thirteen existing and proposed health centers.

4. *Distribution by Population Served*: An analysis of the population served and to be served by 103 existing and proposed health centers shows that again two special population groups are favored, namely, that of 10,000 to 25,000, which has thirty-one and that of 75,000-100,000, which has twenty-two. In the combined groups of 50,000 and over there are fifty-one.

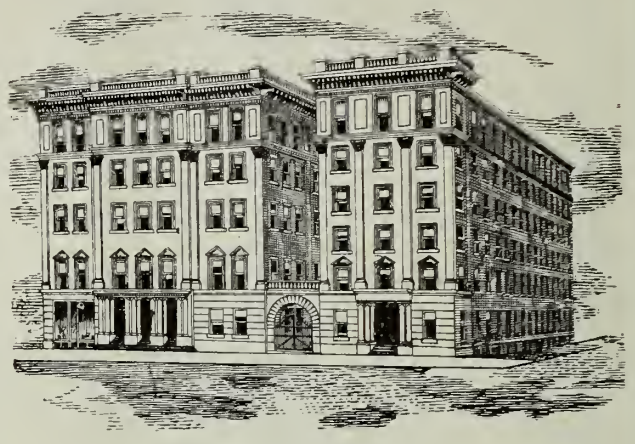
5. *Distribution by Area Served*: Analysis of the area served by eighty-five of the existing and proposed health centers shows the greatest number to occur between 3,000 and 25,000 acres with the peak in the 5,000 to 10,000 acre group. The density of population served is rather evenly distributed with the greatest number in the extremes, that is the below one person per acre and the over twenty persons per acre groups.

6. *Administration*: Analysis of seventy-six communities with existing and proposed health centers shows that thirty-three are managed (or to be managed) entirely by the public authorities and that twenty-seven are managed (or to be managed) entirely under private auspices, while sixteen are or will be under control of both public and private administration. The Red Cross is concerned in nineteen instances.

7. *Functions*: Of forty communities having health centers in operation, thirty-seven contain clinics of some type, thirty-four do visiting nursing, twenty-nine do child welfare work, twenty-seven do anti-tuberculosis work, twenty-two do venereal disease work, fifteen do educational work worth citing, fourteen have dental clinics, eleven have eye, ear, nose, and throat clinics, ten have laboratories and nine milk stations. Other functions are scattering.

8. *Cost Data*: Very few figures on cost are available. Only seven health centers gave figures which seem reliable enough to use. The average per capita cost of maintenance is twenty-one cents. This is cited only as a matter of interest and on account of the small number from which compiled is of little, if any, significance.

9. *Geographical Distribution*: Most of the existing health centers are in the east. New York has the largest number.



City Hospital No. 2, St. Louis Mo., is housed in a building formerly occupied by the Centenary Hospital, which was remodeled last year. It has a bed capacity of 200, and is for the use of negroes.

The University Hospital, Missoula, Mont., is one of the new institutions of the year. It has a capacity of fifty beds.

10. *Status of Existing Health Centers*: The best health center seems to be that at Oakland, Cal., which serves Alameda County. Green Bay, Wis., and Creston, Ia., also have good health centers, though the latter is called a community association. Newark, N. J., and Bridgeport, Conn., are good examples of centralized health work under large city health departments. Buffalo, N. Y., illustrates an excellent system of health centers. Schenectady, Oswego, and Binghampton, N. Y., are good examples of single health centers.

11. *Value of These Statistics*: The health centers of this report are representative of communities of all types. This study is valuable in that it shows present tendencies. Care has been taken to use only what seemed like reliable data. Even so, there are probably errors, but on the whole this report may be considered as indicating some of the necessary lines of development of the health center movement.

THE HOSPITAL RELAY OF THE WORLD WAR*

By FLOYD KRAMER, Colonel, M.C., U. S. A.; Chief of Hospital Section, Hospital Division, Surgeon General's Office, Washington, D. C., and RUSSELL H. KETTELL, Formerly Captain, Sanitary Corps, U. S. A., Hospital Section, Hospital Division, Surgeon General's Office

THE development of hospital and evacuation facilities in a continuous relay from the United States across the Atlantic through the training areas to the battle line and back again in an increasing scale through the interior of France to home territory constituted an unbroken chain. Now that the war chariots have passed, opportunity is afforded for a brief statement of the solutions of the many and varied problems encountered.

The declaration of war in 1917 precipitated the first phase of this problem, the magnitude of which may be estimated from the size of the existing and draft armies contemplated by the War Department. Among troops in training or in the field there is inevitably, just as in civil life, a certain percentage of sick. While battle casualties always vary with the nature of warfare, it was possible to estimate them after an investigation of the experience of our allies.

The first responsibility which devolved upon the Medical Department was to make provision for the sick from unprecedented numbers of new citizen soldiers who were soon to be called into camp, and to organize Evacuation and Base Hospitals[1] for service overseas. To this end a large construction and organization program was entered upon, resulting in a hospital of from five hundred to a thousand of more beds at each of the thirty-two cantonments and the enlargement of about fifty Post Hospitals of the regular establishment. All construction in the United States was executed by the Construction Division of the War Department. When these thirty-two cantonment hospitals began to operate smoothly, advantage was taken of their facilities, and at each one of them several Evacuation and Base Hospitals for service abroad were organized and trained, partly from the seasoned personnel of the cantonment hospitals and partly from raw material. One hundred and sixty-one Evacuation and Base Hospitals were thus organized and sent to France. Fifty-eight more were organized before the date of the armistice but were not sent abroad.

The next responsibility was the preparation of hospitals to care for the sick and wounded to be returned later from the battle lines of France. First, debarkation hospitals must be provided at the two ports, New York and Newport News, to receive from shipboard and give immediate care to those invalided home. They must be located near the docks and railroad terminals, must have great capacity, and, finally and most important of all, must be so constructed as to promptly admit and feed large numbers on short notice. Accordingly a number of large properties were acquired and the necessary alterations made. Of the New York group, the most notable two were Debarkation Hospital No. 3, formerly the Greenhut Building, and Debarkation Hospital No. 5, formerly Grand Central Palace. They had a combined normal capacity of over 5,000.

Clearing Hospitals Vital Links

While on this subject, it is proper to note that time proved these two clearing hospitals very important links in the chain. They served their purpose admirably. Each at times admitted patients from transport at a rate of approximately 300 per hour, and each admitted in a single day upwards of 2,000. Under the term "admitted" is included: preliminary physical examination, throat culture, recording complete admission papers, disinfection of clothing, receipt for personal property, delousing, bath, issue of clean clothing, procurement of affidavit for back pay, and assignment to proper floor and ward. By 6 o'clock on the evening of the first day most men who were able to be about had been paid and given a pass.

At Newport News, the cantonment hospital at Camp Stuart was used for most of the debarkation work, but later on Debarkation Hospital No. 51, formerly the Soldiers' Home at Hampton, and Debarkation Hospital No. 52, formerly Richmond College, Richmond, Va., were acquired and altered for this work. The Camp Stuart hospital proved even more efficient than the individuals of the New York group, though this was to be expected, as it stood alone for some time, and for this reason had more work thrust upon it, and therefore more opportunity to prove itself a worthy link in the chain.

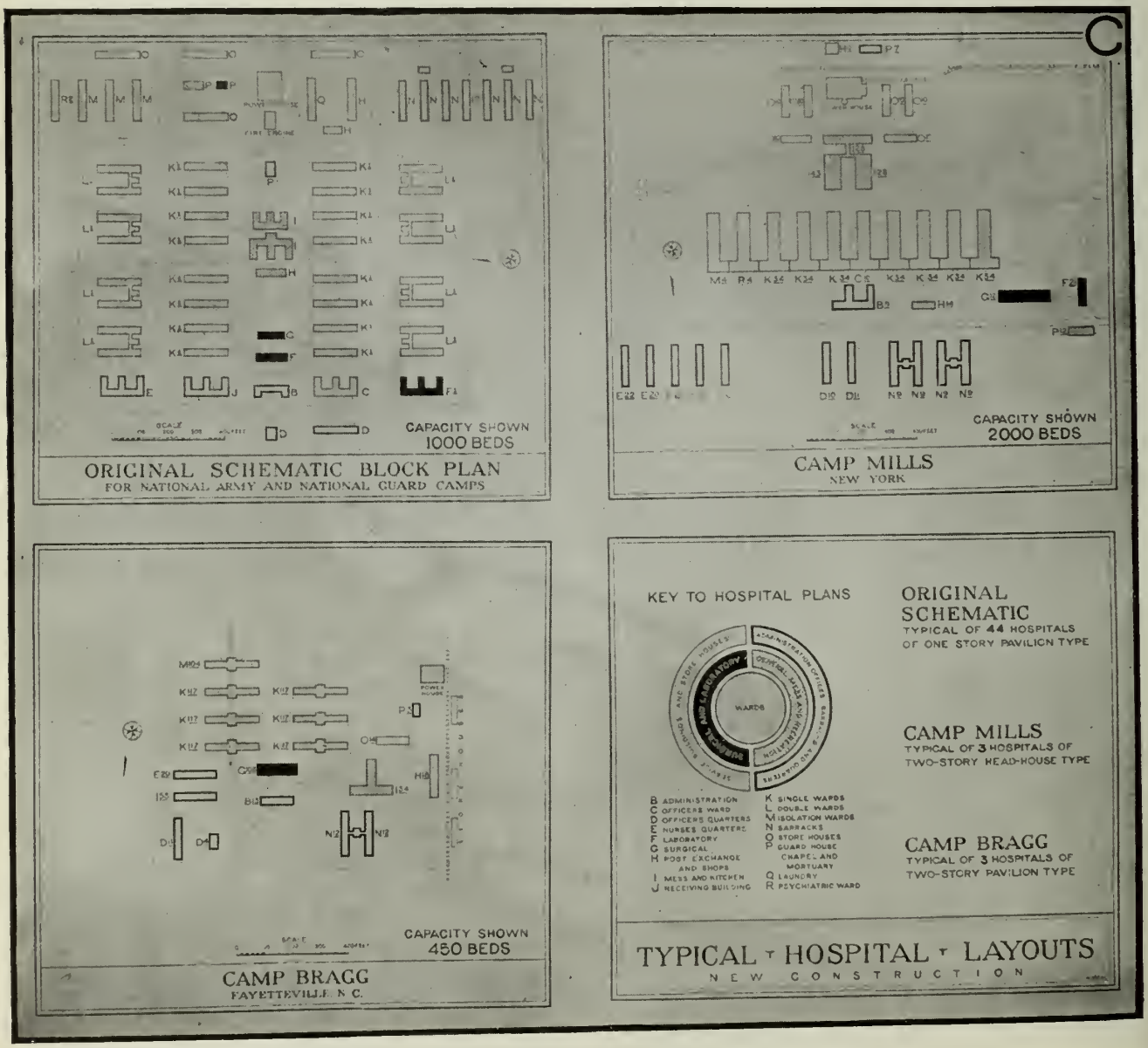
The next phase of this problem of caring for the returned sick from France was to provide

*Authority to publish granted by the Surgeon General, United States Army.

1. Capitalization of hospitals or other units indicates that they are recognized units in the Tables of Organization of the Army.

General Hospitals for their continued treatment. A survey had been taken of the civilian hospital situation throughout the United States. The Army had already drawn heavily upon the willing medical and nursing profession, and was to continue to do so. It was deemed wise to maintain control over all the sick of the Army. It was determined best to provide in the main general, not special, hospitals, and to distribute them over the densely populated areas, so that the sick could be cared for near their homes. Finally it was declared unwise to place maimed soldiers returned from abroad in the cantonment hospitals with the recruits, who were yet to see the grimmer side of war. So, with these things in mind, a construction, leasing, and alteration program was begun. The first General Hospital secured was a 500-bed hospital in New York City which started the list as General Hospital No. 1 in the summer of 1917, and in the fall the beginning of General Hospital No. 2 at Baltimore, Md., followed. The work continued as the general military problem developed, until the armistice, when General Hospital No. 43 topped the list. There were many others in process of development, which were cancelled. The war having ceased, some of the wounded could be sent to cantonment hospitals, and this enabled us to place still nearer home, all the sick from France.

The program of hospitalization here in the United States, slowly as it seemed to develop, nevertheless had made progress, so that, whereas at the declaration of war there were but 10,000 beds in all military hospitals in the United States, one year later 70,000 beds had been provided. Most of them, however, were for the sick at camps, although General Hospitals for 10,000 sick had already been prepared for the day, un-



Layouts typical of most of the hospitals constructed *de novo* in the United States.

View of typical 1,000-bed cantonment hospital (incomplete), Camp Sherman, Chillicothe, Ohio.

certain but inevitable, when they would be needed. By the time of the armistice, the total number of beds had reached 120,916, distributed in 109 camp and cantonment hospitals, 80 post hospitals, 43 General Hospitals, and 3 department base hospitals. Crisis expansion is not mentioned in connection with the hospitals in the United States as expansion practically without limit was possible. Normally each patient had from 800 to 1,500 cubic feet of fresh air all his own. The greatest number of beds in United States hospitals at any given time was 173,505—October, 1918.

The Increasing Bed-Capacity

Reverting to our first responsibility—the care of the sick from the draft army in the United States—we had the usual experience with contagious diseases, sore feet, colds, and minor ailments in the unseasoned and non-immune troops in the United States. A considerable increase in capacity was installed at the thirty-two camp and cantonment hospitals, chiefly effected by the erection of ward-barracks for the convalescent and "walking" patients, of whom there was always a high percentage. Thus, many hospitals were doubled in size. Also, several large hospitals were built at newly organized training camps as time went on, and small camp hospitals were provided at the various temporary schools, arsenals, depots, proving grounds, and other stations, as fast as such activities sprang into existence. This work was continued right through to the armistice.

When the armistice was signed, there were plans under way for a number of camps and hospitals far larger than any hitherto considered in this country. These hospitals were designed in two-stories and were of a semi-flexible head-house-and-wing type. This was the solution of the military problem presented by the proposed establishment of camps ranging in size from fifty to one hundred thousand men and was a necessary incident to the placing of 3,360,000 men in France by July 1, 1919. Most of these newer projects came to an abrupt end with the termination of hostilities but a few were partially built as at Camp Mills, Long Island, N. Y., where the original plans for a 4,000-bed institution were finally put through at one half that capacity.

Three Shipping Centers

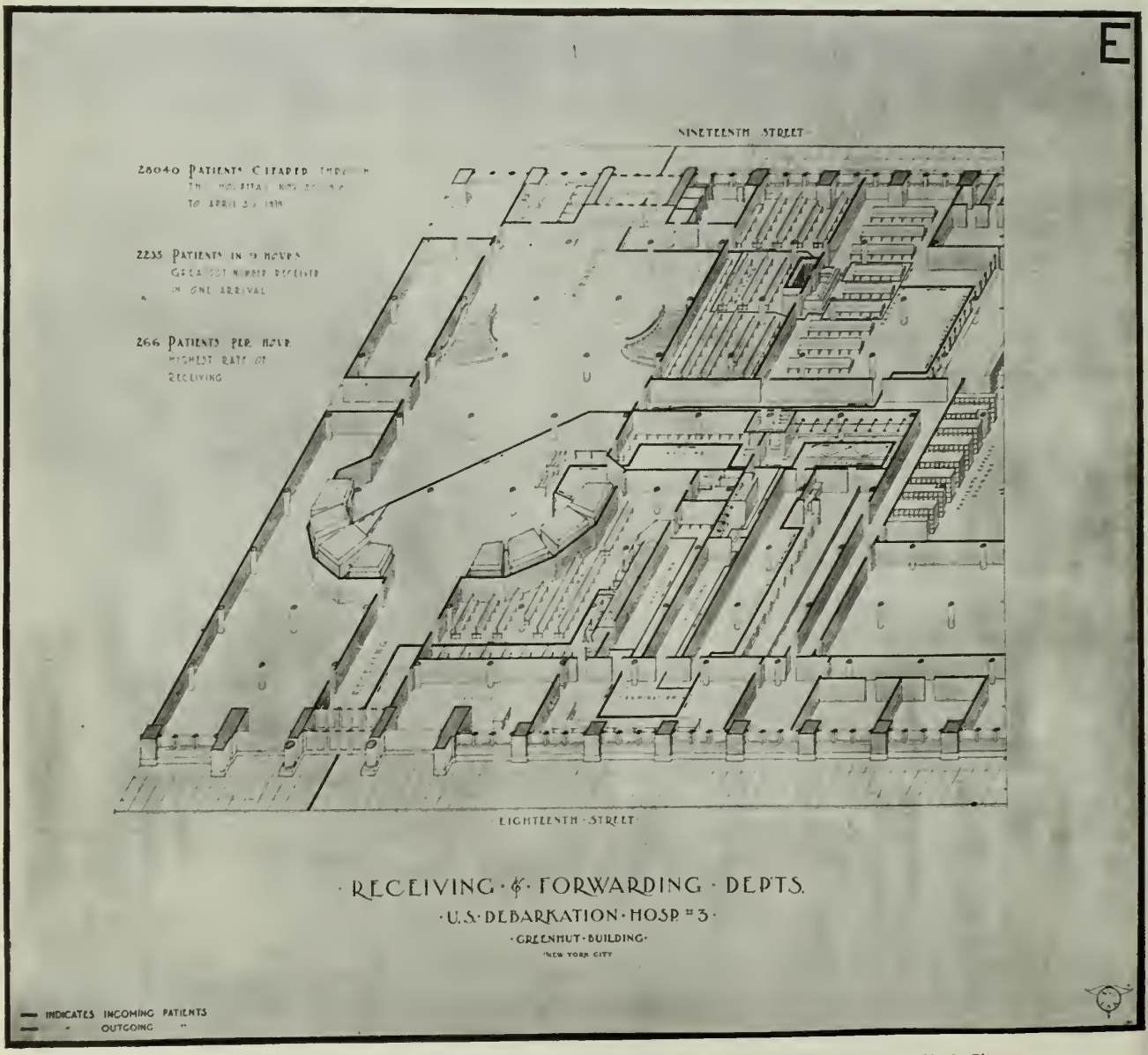
It was decided to embark the great bulk of soldiers from the three important shipping centers, New York, Newport News, and Charleston, S. C. Facilities therefore had to be provided at these places, and not at the normal percentage as seen in post or camp, but at a much higher figure due to the unusual conditions where units were continually arriving from the cantonments and departing by transport, leaving their sick and those exposed to contagion behind in accumulating numbers. At New York such sick were provided

for partly in increased hospital accommodations at the hospitals of Camps Merritt and Mills, and partly in leased and altered civilian properties. At Newport News practically all of such sick were provided for by greatly enlarging the hospital at Camp Stuart. The port of Charleston was never fully developed.

On shipboard medical provision was reduced to the minimum, as no men were started on the voyage across the Atlantic until they had been pronounced physically fit by medical officers stationed at the ports and charged solely with that responsibility. From 5 to 8 per cent of the troops to embark were found, some permanently, some temporarily, unfit to embark.

Upon their arrival in France our troops were sent immediately into training areas to receive the most up-to-the-minute instruction before taking their places among the combatant forces. For hospitals in these training areas, it was at first necessary to call upon the French for buildings, since, with American soldiers arriving in large numbers as early as June, 1917, there had been no opportunity for the Medical Department to make any advance preparations in this respect. French hospitals, hotels, barracks, and even stables were generously offered and gratefully accepted to meet this situation. But it was an emergency measure, resorted to reluctantly and with considerable difficulty, for, in the first place, it was a drain upon the resources of the French, and in the second place,—"first come first served" —we found ourselves looking over a field already well picked by the French, British, Belgians, and Italians.

Just as soon, therefore, as building material, saw mills, and labor were available, a standard camp hospital was designed, simple, yet in all



An isometric plan of one of the many cogs in the "machine" at Embarkation Hospital No. 3, New York City.

A 170-bed ward in Debarkation Hospital No. 3, New York City.

essentials complete. This hospital, Type B, as it was known, laid out with a normal capacity of 300 beds, could in times of emergency, by setting up tentage in prolongation of each ward-building, be expanded to 1,000. The construction unit was the double-wall portable wooden hut, 20x100 feet, that had already proved its worth with the governments of our allies. Bought in whatever country they were at the time available (they were never designed in the United States, nor were they ever procured here because of the acuteness of the shipping problem), these huts, in sections, were sent to the desired location for erection. In France the work of setting up hospitals, together with any necessary road, sewer, and water installation, was the responsibility of the Corps of Engineers.

Medical Department Concentration

For the final training of mobile organizations of the Medical Department there was a specially assigned area covering twenty-five square miles and taking in nine villages with a billeting capacity of 500 officers and nurses and 10,000 enlisted personnel. This reservation was known as the Medical Department Concentration Area. It served as a place of instruction for newly arrived units and, being located in the Zone of the Armies, provided for rest periods for organizations on duty at the front by withdrawing and replacing them by fresh units, and gave opportunity for the overhauling and repair of their equipment.

Next in the hospital chain to those at the training areas were the mobile sanitary organizations accompanying the armies up to the front. These consisted in Field Hospitals, Evacuation Hospitals, Mobile Hospitals, and, in time of emergency, Red Cross hospitals. They formed the elastic connection between the moving armies and the fixed establishments in the rear.

Let us follow the course of a man wounded in action back, step by step, to the rear and finally to the United States.

The occasion is perhaps but the work of an instant. A crash—a shower of dirt and shell fragments—and our man is on his way to the Battalion Aid Station immediately in his rear. Here, as the name implies, immediate attention is given to the injury, but no elaborate treatment it attempted. As soon as the way is safe—perhaps at once, perhaps not until night—the patient is transported (by ambulance or hand or wheel litter), or, if he is able, walks to the Field Hospital set up not far to the rear.

Distribution of Casuals

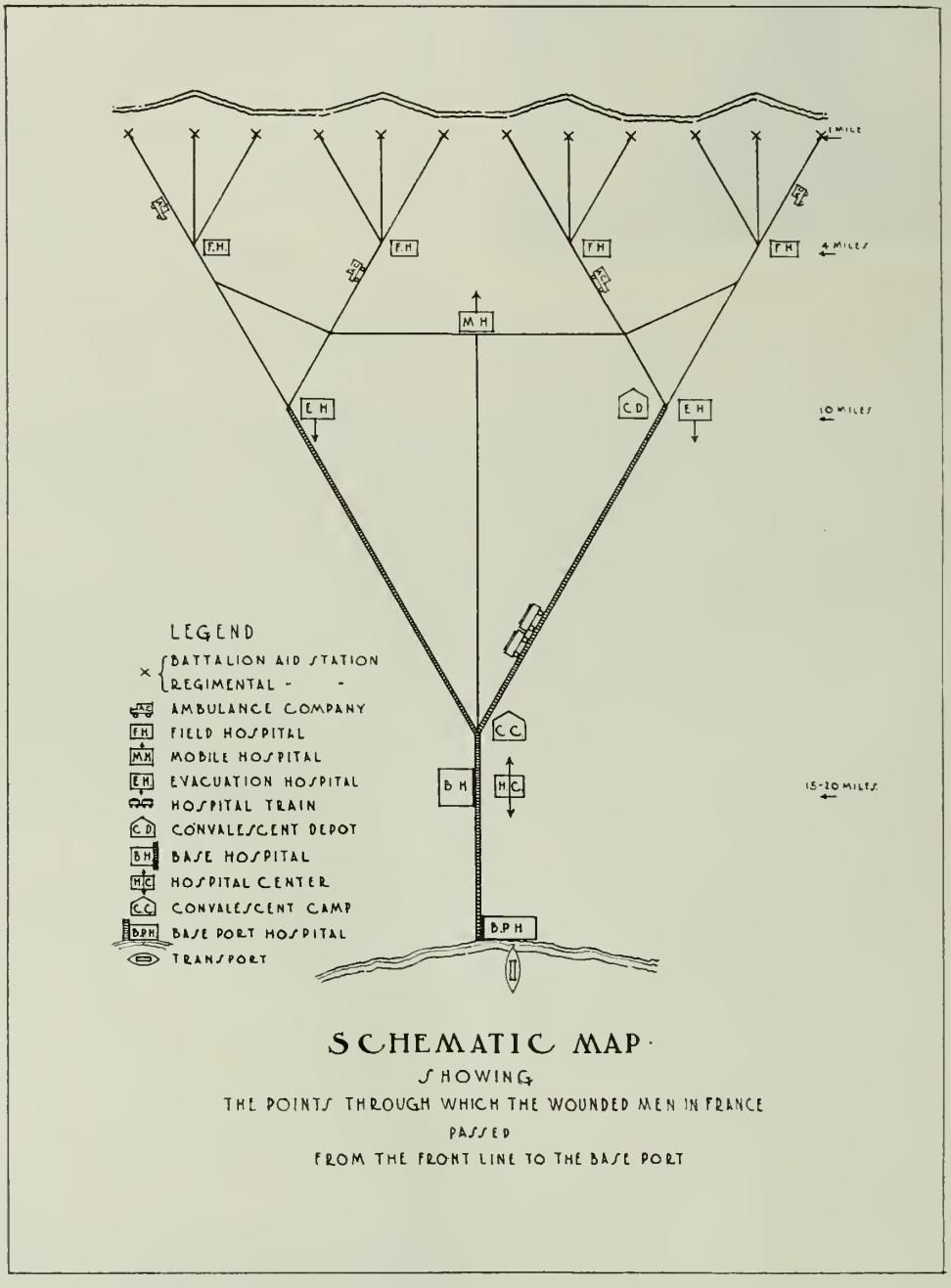
In the organization of our Army there are four Field Hospitals to each Division. One of these is being used as originally equipped as a sorting station for the Division's sick and wounded, and to this our man is taken. Of the other three hospitals, one has been especially outfitted with extra bedding and a Mobile Surgical Unit to receive the acute surgical cases (resulting in saving the lives of at least fifty per cent of this class of patients, to whom further evacuation at this time would destroy all chance for recovery) ; one has been developed to treat gas casualties by the provision of shower baths, requisite chemicals (including oxygen in tanks), and new clothing, and one is customarily held in reserve. A number of Field Hospitals are cleared through an Evacuation Hospital, just as the Aid Stations empty into a Field Hospital.

The Evacuation Hospital now comes next on our way back from the firing line and is the most important link in our chain. It provides facilities (this time quite complete) for the treatment of such cases as should not be subjected to a rail-

Camp Hospital No. 10, Prauthoy, Haute Marne, France, showing the portable wooden huts that were the basis of all new hospital construction overseas.

road journey. During periods of unusual combat activity there was brought up a Mobile Hospital (we had in use twelve, organized with 120 beds and six operating teams each) to work alongside the Evacuation Hospital, or between it and the Field Hospitals, caring for the more severely wounded. To function properly, Evacuation Hospitals must be located at railheads served by standard-gauge tracks, to permit of speedy and easy accessibility by hospital trains. The greater part of the primary surgery on American casualties was performed in these hospitals. In addition to its own high-class personnel, in times of stress it became necessary to assign to these hospitals, organized into "teams," some of the best surgical talent in the country.

In connection with the Evacuation Hospitals and as a result of experience, there arose a necessity for the establishment of certain large centers known as Convalescent Depots, into which could be poured directly from their examination at the Evacuation Hospital those cases for whom a quick return to duty was anticipated. In this way it was proposed to save either the rail transportation that would have been necessary to move them into the Base Hospitals, farther back, or



Schematic map showing the points through which the wounded men in France passed from the front line to the base port.

the accommodation that they would have required in the much overtaxed Evacuation Hospitals. These Depots either were of tent construction or were established in existing French buildings.

First aid station located in the basement of a shattered house at Les Eparges, Troyan Sector, France.

They were designed for never less than 3,000 beds, and, in times of emergency, by the addition of one or more mobile surgical units, they could be used for the more severe as well as for the light cases.

But we will suppose that it is decided to send this man in whom we are interested, without delay to a Base Hospital. He has been examined, recorded, given necessary surgical attention, and placed on board a Hospital Train, possibly on the afternoon of the day of his arrival at the Evacuation Hospital.

Hospital Trains Kept Busy

These Hospital Trains, of which we had twenty-one in France,—nineteen of the British Type and two of the French, all vestibuled,—were in constant operation. They kept the units up toward the front cleared by filling up the Base Hospitals in the rear. They offered every convenience for carrying and feeding a load of 360 lying or 600 sitting cases, with the necessary attendants. During the last months of the war, when railroad facilities were taxed to the utmost, we were using in addition to our own trains, above mentioned, at times as many as forty-seven extra hospital trains borrowed from the French. These borrowed trains were of the improvised, non-vestibuled type and varied greatly in capacity and equipment.

Upon arriving at a Base Hospital, our man has completed the first phase of his journey. Here he remains for treatment, until such time as he is ready for duty again, or, if he is incapacitated for a prolonged period, until he is ready for the voyage home.

American Plan Impracticable

The history of the Base Hospital development in France is worthy of a brief discussion. Early in the war a set of plans, much like those used for the cantonment hospitals in the United States, were sent overseas with the feeling that they would be of service whether adopted or not. They were found impracticable for two reasons. In the first place, as was pointed out in connection with the camp hospitals in France, during those first months no new construction projects could be considered because of the scarcity of labor and material. And in the second place, when finally there were materials to use and men to use them, there was so much construction to be done that a layout such as the one sent from America, involving extensive sewage, plumbing, and heating systems, a wide spacing of buildings, extensive terrain, long side porches, and other refinements, could not be considered. So at first the conversion of existing French buildings was resorted to in establishing Base Hospitals. Eventually, however, it became both advisable and necessary to build, and plans for a "Type A," or Base Hospital, were drawn up under the supervision of the Chief Surgeon, A. E. F. Here, as in the case of the cantonment hospitals in America, the plan of Letterman General Hospital at Presidio, Cal., was in mind, but the interpretation in France was of necessity far more compact than that in America, and the portable wooden hut was the basis of it all.

Mobile Hospital No. 2 ready to move to the assistance of an Evacuation Hospital "Somewhere in France."

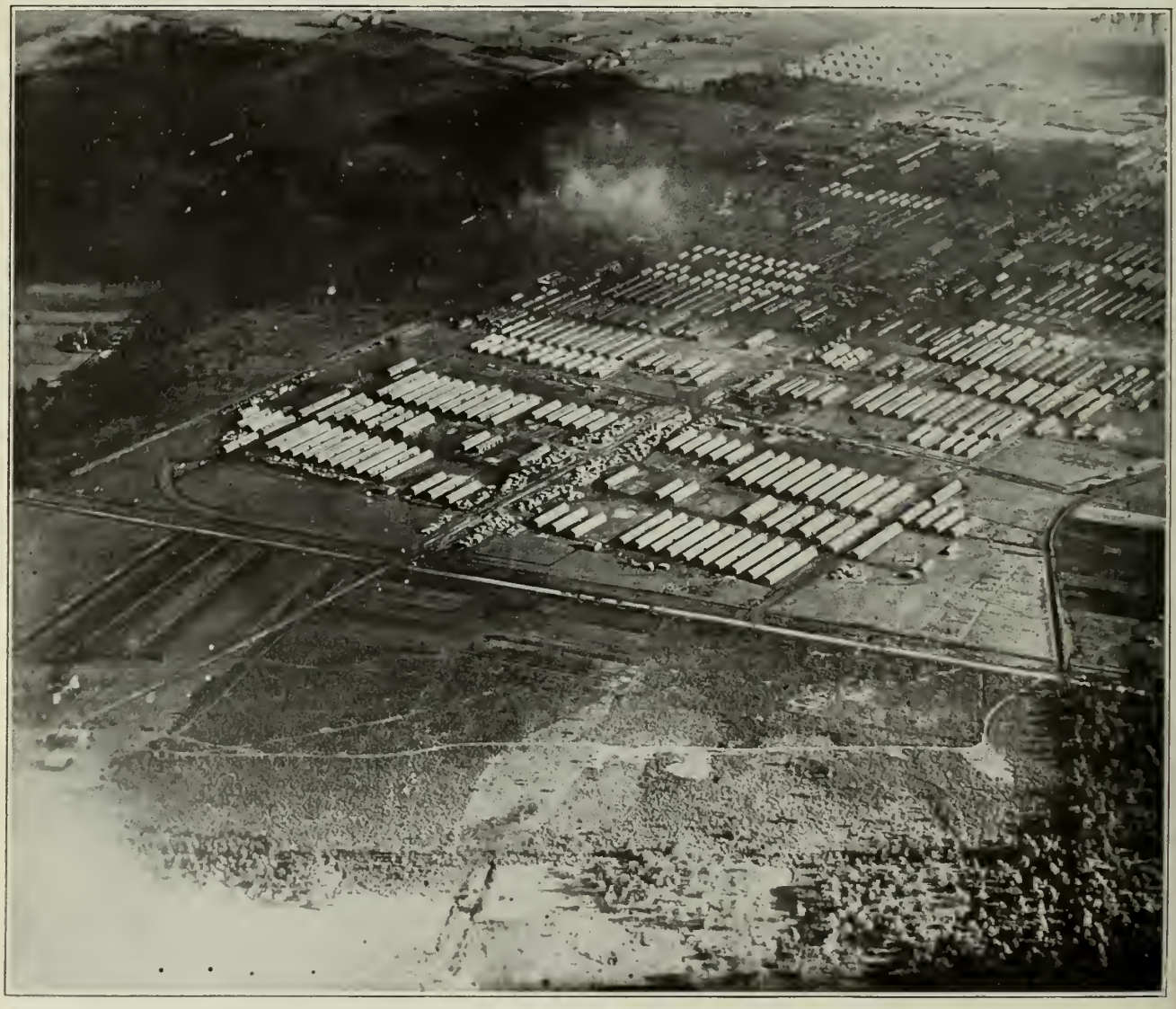
"Type A" had a normal capacity of 1,000 beds and was figured originally in crisis expansion at 2,000. Later, however, this figure was reduced to 1,500, as it was found that doubling the number

of patients in times of emergency put too great a strain upon the personnel. The ward building was 20x160 feet for fifty patients, and the crisis expansions, as at the camp hospitals, was effected by tentage raised as a continuation of the ward and using its services. The highest order of definitive treatment was carried on in these hospitals.

It was found desirable from an administrative standpoint to group two or more Base Hospital Units together on one site with a suitable railroad spur. Thus a considerable number of "hospital centers," as they were called, were developed, with a proposed ultimate capacity of from ten to twenty thousand beds each. In these centers certain units could be especially assigned, this one to surgical cases, that one to pneumonia, and so on; and it was frequently the case that a new and inexperienced medical unit would be located beside one of well established routine, thus to be broken in.

Near, and a part of, each Hospital Center there was established a Convalescent Camp, a tent city, to which those patients who had reached that stage in their recuperation where they required little attention could be transferred. Here they were well sheltered and fed and given enough work and exercise to fit them for their return to active duty. As far as possible, the men were removed from hospital atmosphere, and their moral fiber strengthened by band concerts and entertainments.

Soldiers incapacitated for further service were to be transported back to the United States. Before this journey could be taken, however, they must recuperate sufficiently for the trip, which meant two things: first, an accumulation of sick and wounded in the hospitals in France, and second, a high percentage of ambulant or walking patients among those returning. In meeting this accumulation, the Chief Surgeon, A. E. F., was operating at the time of the armis-



Aeroplane view of the Beau Desert Hospital Center showing six 1,000-bed Base Hospital Units, three on each side of the railroad track, France.

tice, 153 Base Hospitals in France; and this number was considered hardly more than a beginning, had hostilities continued much longer. The total number of beds in hospitals at that time, exclu-

Ward, typical of both Base and Camp Hospitals in France.

sive of those in Evacuation Hospitals, was 209,134—or 283,533 with crisis expansion. Of these, 190,880 were occupied. One hundred and fifty-five thousand beds were in process of installation and 60,000 additional beds were ready to function as soon as personnel and equipment should arrive. But the personnel was not to arrive. It was the fifty-eight Evacuation and Base Hospitals referred to in the third paragraph (page 215) ready to sail, but held up in the United States when armistice was signed.

Wounded Men Return Westward

Let us now think of our patient as one of a high-spirited crowd of returning wounded soldiers bound for New York or Newport News, the two ports designated for their reception. At these two points, as we have seen, special facilities for the reception and clearing of large shipments of patients had been carefully prepared. It was a wholesale proposition, as upon short notice several thousand patients might be quickly landed, and they must be taken care of immediately. In New York, at the height of its activity, there were 18,000 beds provided, of which about one-half were used as debarkation hospitals for the reception of A. E. F. sick and wounded. These hospitals, as previously stated, were located in buildings such as the Greenhut Building and the Grand Central Palace. At Newport News the total beds provided was 7,000, and as in New York, about one-half of this number was used for the reception of the debarkation sick and wounded.

It is an interesting point that in debarkation hospitals, as in Evacuation Hospitals, the keynote of successful operation is the ability to empty the institutions with the greatest dispatch. This was made possible by the installation of special facilities for that work and an active system of forwarding the patients to the General Hospitals. This entailed efficient recording, examining and classifying of the cases, and continuous transport by rail to the near and far corners of the United States. Every soldier was sent to the hospital nearest his home which could give him the treatment which his individual case required. Up to November 30, 1919, 147,487 sick and wounded from France were received into the port hospitals, three-fourths at New York and one-fourth at Newport News; fed, treated, rested, clothed, and paid, they were then sent by Medical Department hospital trains to the interior of the United States. Of the above number, all but 40,000 cases were handled in five months—January to May, 1919. Also 44,864 transfers were made between the interior General Hospitals, making a total of 192,-351 cases handled by Medical Department trains in the United States.

Transportation of sick in the United States was accomplished by (a) four Hospital trains, each consisting of: 1 kitchen and attendants car, 1 baggage and store car, 3 bed cars and 2 tourist cars; and (b) forty so called "Unit" cars. The "Unit" cars were so designed as to carry attendants, supplies, kitchen, etc., for 250 sick, so that with 8 standard Pullmans attached, each "Unit" car created a 250-bed railway hospital. We thus had in fact 44 hospital trains with a carrying capacity of 8,000 patients. The 44 "Unit" cars were relatively inexpensive in initial cost and un-

The Convalescent Camp operated in connection with the Mars Hospital Center, France.

usually economical in operation cost, as of each whole nine-car train, the "Unit" car was the only one remaining at the end of the out-bound trip to be hauled back to port, the Pullman cars having

been cut off at the various General Hospitals to unload, and revert again to their use in general passenger traffic.

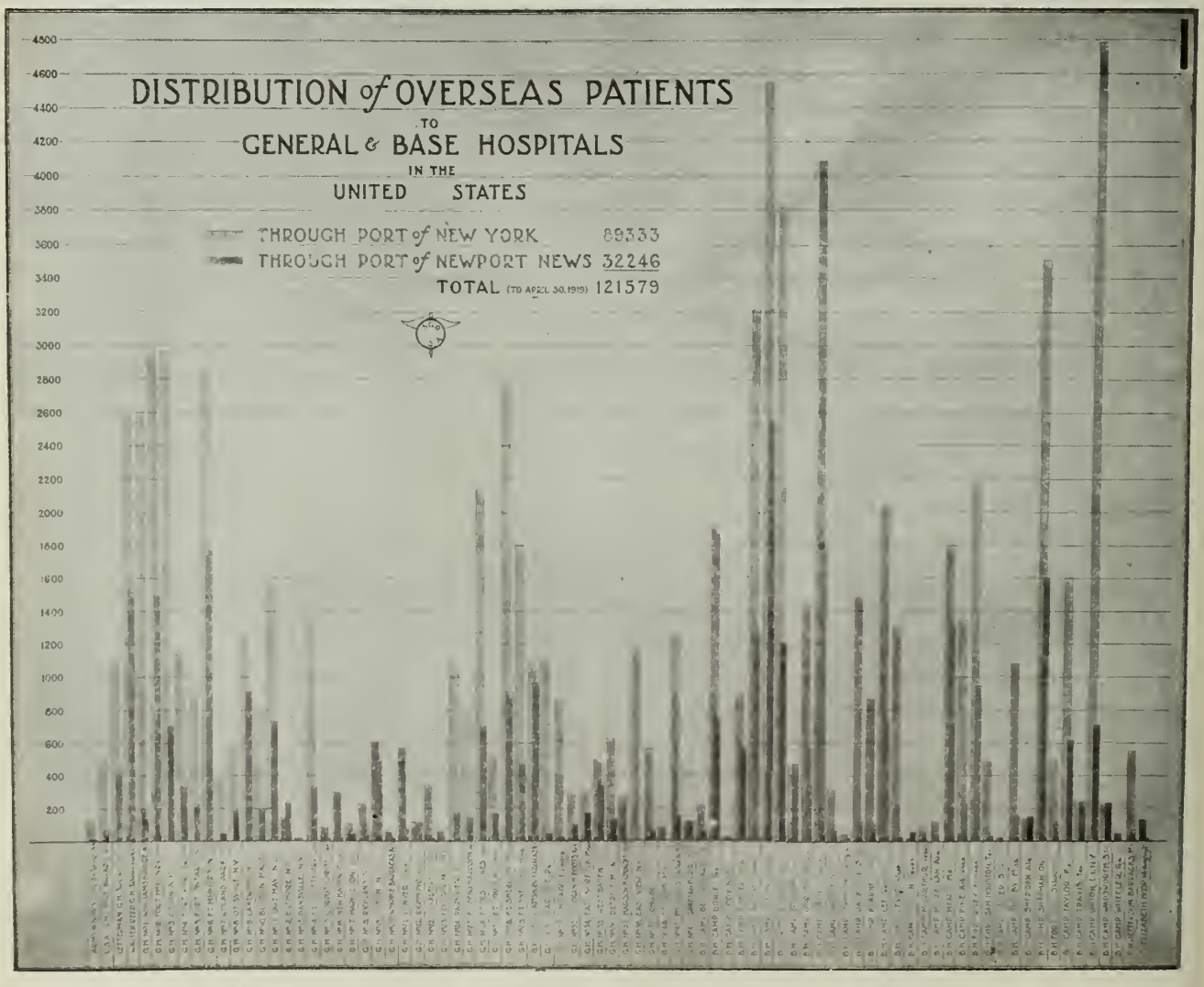
General Hospital Last Link

On one of these trains, this soldier of ours is taken to one of the General Hospitals, the last link in the chain over which the Surgeon General of the army has control. Most of these hospitals now remaining are at military posts which were altered to suit hospital requirements. Some of them were in new construction or virgin soil, some in hotels, institutions, and factory buildings, leased and altered, and others were in city hospitals acquired for army uses for the emergency. Certain of them received tuberculosis only, others offered specialties such as for speech and hearing defects, mental diseases, etc.; all had modern mechanical apparatus for cases requiring physical reconstruction, and there was one hospital that treated and reeducated the blind exclusively. At the time when the greatest number of wounded were returning from France (May, 1919) there still remained in operation 37 of the 43 General Hospitals—demobilization of our General Hospitals, the last and most enduring link in the chain, was already under way. To-day, Feruary 15, 1920, but 11 of these hospitals are in operation, and of this number, five are permanent military hospitals and will without doubt always so remain.

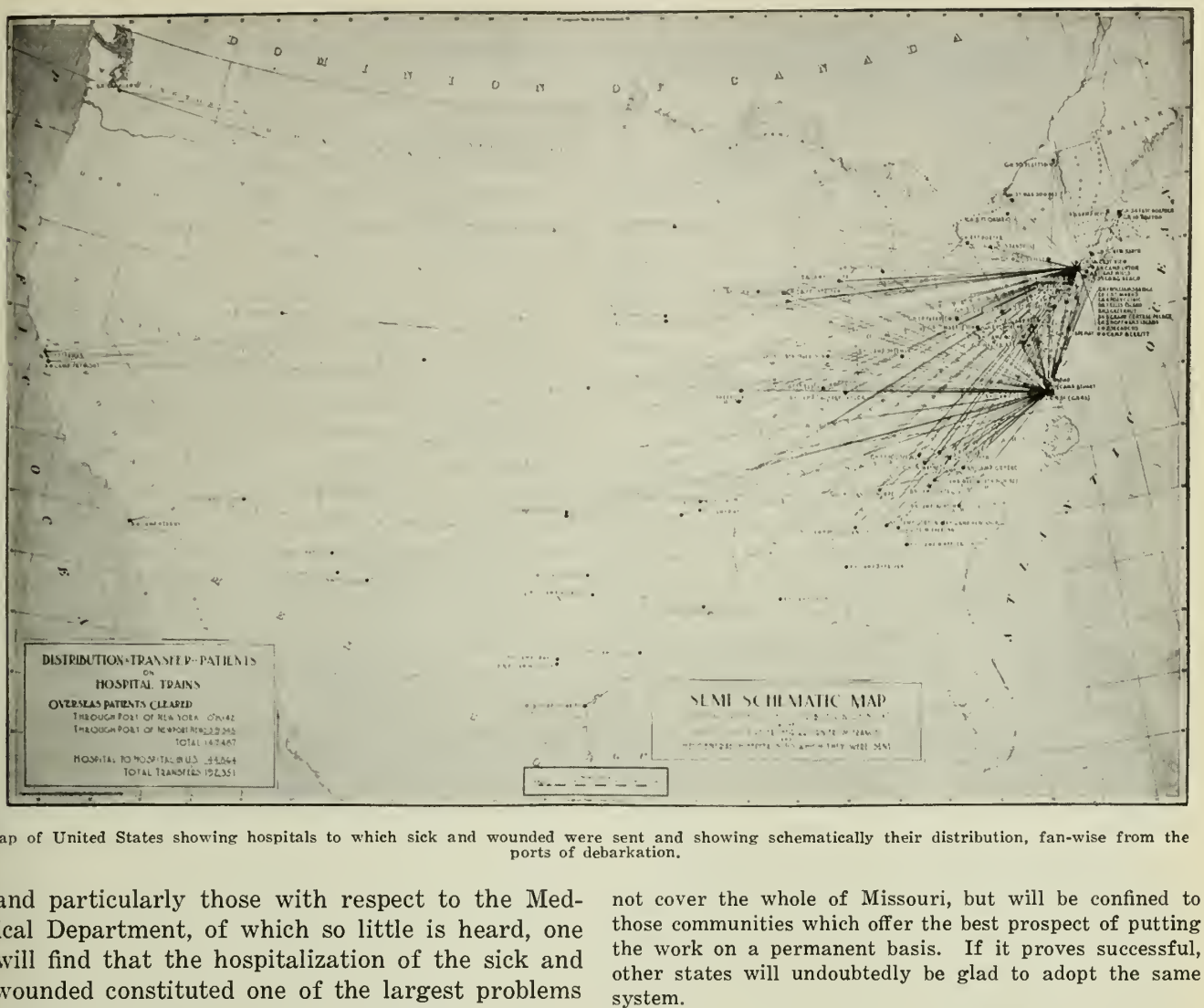
Free Treatment Until Cured

In one of these hospitals our man is being kept under treatment until he has attained the very best physical condition that is possible for him. The majority of sick and wounded have been returning direct to civil life upon their complete recovery and discharge from the General Hospitals; some, however, step from them to the control of the Federal Board for Vocational Education to take advantage of the Government's offer to teach the disabled soldier some trade for which he may be fitted.

In considering the achievements of this war,



These are the United States Hospitals to which the first 120,000 wound ed from France were sent.



Map of United States showing hospitals to which sick and wounded were sent and showing schematically their distribution, fan-wise from the ports of debarkation.

and particularly those with respect to the Medical Department, of which so little is heard, one will find that the hospitalization of the sick and wounded constituted one of the largest problems and that it was solved in a creditable manner.

HEALTH DEMONSTRATION IN MISSOURI

A health survey and demonstration undertaken by the United States Public Health Service in several localities in Missouri by which it is hoped to establish standards for child hygiene work in the school and home, is being followed with interest by health officers and educators throughout the country.

The first thing the demonstration will emphasize will be the registration of births. Health conditions of children will be studied. Infant health stations will be established and, for children needing medical attention, treatment will be made accessible. A modern health crusade will be conducted in the schools by means of examinations, and, where necessary, proper treatments. Correct food and exercise will be suggested and health classes will be conducted. By these means it is hoped to save thousands of lives, and to remove physical and mental handicaps at an early age so that coming generations may be stronger and the stamina of the nation greatly improved.

Missouri was selected for these demonstrations because the health conditions in that state are typical of the average American community. In addition, the legislature created a department of child hygiene and the State Board of Health asked the Public Health Service to demonstrate how this department could best function. The study will not cover the whole of Missouri, but will be confined to those communities which offer the best prospect of putting the work on a permanent basis. If it proves successful, other states will undoubtedly be glad to adopt the same system.

CHURCH WOMEN LABOR FOR HUMANITY

A Hospital Committee is an important branch of the Churchwoman's League for Patriotic Service recently organized with national headquarters in New York. Coordination of work in church and nation for the improvement of the country and the conservation of energies so nobly expressed in the war in order that the urgent needs of peace may be clearly understood and worthily met are the aims.

The League came into being in order that the skill in making surgical dressings and garments, and in knitting which was acquired during the war might be utilized by presenting to the women the needs of the hospitals, and by representing it as the civic duty of every woman who knows how to do this kind of work to help the institutions of her own city.

Work rooms have been opened where women congregate on Tuesdays and Fridays, and they are responding in increasing numbers to the appeal to keep in circulation the talents which will result in greater efficiency in the institutions throughout the country.

Besides the Hospital Committee, there are committees on Americanization, Canteens and Saloon Substitutes, Modern Methods, and on Preventive and Rescue Work.

There is no way under heaven by which a person can be happy without being good, clean, square, and true.

The MODERN HOSPITAL

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FROM THEORY TO PRACTICE

THE fact that the hospitals of the Department of Public Charities in New York put into effective operation last month a plan of staff meetings, through which the staff members will be able to check up the character of their work in these hospitals, is of great significance. An account of this action is given on page 236 of this issue of THE MODERN HOSPITAL.

After the superintendents and the staffs approved the plan as outlined by Commissioner Bird S. Coler, the Commissioner issued a brief order which penetrated to the basic purpose of the hospitals. "Pursuant to the end that all patients in the hospitals under the direction of the Department of Public Charities," he wrote, "receive the most efficient care known to the respective staffs of the hospitals, the following orders are issued."

Probably no single decision in recent years will ultimately do more toward a close and right relationship between the general public and the medical profession than this one. Facts are undebatable. New York now does away with sentiment and proceeds to the facts concerning the care of all patients in the municipal hospitals. A powerful public confidence in these hospitals is certain to follow; and this confidence is the basis of adequate public support.

What happened was that the hospitals under the Department of Public Charities accepted and carried out to the last degree the program of hospital standardization as suggested by the American College of Surgeons. The staffs of these hospitals favored the action for only one reason, the reason being that they believed the program to be thoroughly sound and the best program yet offered for consideration.

ATTRACTIVE GROUNDS AN ASSET

IT is not too early to begin thinking about beautifying the grounds of your hospital. Mr. Charles W. Leavitt deals with this subject briefly in his article on "Landscape Treatment of Hospital Grounds" on page 229 of this issue. Perhaps you have just constructed a new hospital, erected a new pavilion or made some extensive alterations. Your grounds are, in consequence, badly torn up, bare, and unsightly. Do not let this condition exist any longer than you can help. The task may be large enough to justify the employment of a landscape gardener. If, however, the situation does not justify this expense and funds are not available, you can do much through careful planning and a real interest in the subject.

Not a little can be gained from a perusal of the catalogs of some of the leading seed merchants. These catalogs give lucid descriptions of various flowers, shrubs, and vines, indicate how and when seeds and seedlings should be planted, and how plants should be cared for. Some of them contain reproductions of actual photographs of flower beds so that you can get a fairly clear idea of effect and arrangement. If you want to have a practical knowledge of the flower garden, even though you may not be able, personally, to give much attention to it, your local library can supply you with helpful books on the subject.

Attractive grounds are an asset to any hospital. They win friends; they comfort patients, and in a subtle, though none the less real way, help them on the road to recovery; they contribute to the pleasure and contentment of all the hospital's workers. Do not neglect them.

A hospital cannot neglect the appearance of its grounds with any greater impunity than a superintendent can neglect his or her personal appearance. This was brought home very forcibly to us one day last summer when we visited a small New England city for the purpose of calling on two of its hospitals. Our first reaction to one was decidedly unfavorable; to the other, most favorable. This was due not so much to the architecture of the buildings as to the appearance of their

grounds. One was decidedly messy. The grass had not been cut in weeks. Weeds had sprung up on every hand. There were no inviting flower beds and vines. Ashes had been allowed to accumulate in the rear yard, and accumulated papers were being blown about in eddies of wind. The other hospital, less pretentious in architecture, had grounds that were attractively arranged. The graveled roads were well kept. The grass had been mowed and bright colored flowers nodded a welcome.

Later, what we were almost morally certain of before we entered either institution, was confirmed by our own observation. The first hospital did not have a good standing in the community. It was inefficiently run by a superintendent who lacked administrative experience, and by her own personal appearance showed she lacked an appreciation of the value of well kept grounds. The other hospital had an excellent reputation, was steadily growing, and was run by a thoroughly efficient hospital executive, who saw the value of making and keeping the grounds attractive and inviting.

To be sure, the success of the latter institution was no doubt largely due to its capable administration and its skillful medical and surgical service, but these were in no small measure reflected by the attractive appearance of the hospital grounds. In no mean degree the appearance of the grounds of a hospital tend to make or break it.

VISITING FACTORIES AN AID TO HOSPITAL PURCHASING

TO assist in reducing the high cost of living—and this holds true as much for corporate bodies such as hospitals and allied institutions as for individuals—our government asks us, among other things, to buy with discrimination. Discrimination, however, presupposes knowledge. And the more intimate this knowledge the better prepared we are to exercise whatever power of discrimination we possess. This applies as much to discrimination in the purchase of hospital equipment as to discrimination in the purchase of any other commodity. One way for hospital superintendents and others charged with responsibility in the purchase of equipment to acquire this intimate, first-hand knowledge is to spend an afternoon now and then, as time and opportunity offer, in one or more of the factories where hospital equipment is manufactured.

Here you can see and perhaps handle raw materials and rough parts, watch the machinery, and observe the workmanship and manufacturing processes that pertain to the making of finished pieces of equipment. Here, for instance, you may watch pieces of sheet and tubular steel fashioned into a thing of usefulness and often of beauty, or a rough, seamless, brass shell transformed into a dome-shaped sterilizer whose polished surface vies with milady's mirror.

Knowledge acquired through such visits makes you a better judge of the quality of goods you are seeking to buy and the skill and workmanship put into them, and enables you to guard against having a worthless, or at least an inferior, article foisted upon you quite so frequently. You will learn to know, for example, whether the white enamel paint on the beds you propose to purchase was applied by dipping or with a brush, or whether a sterilizer is finished with inferior nickel plate or plate of excellent quality. You will not be so utterly dependent upon what the salesman tells you, for, knowing something of what goes into a given piece of apparatus, you will be the better able to talk intelligently of its make-up and merits, and to rely on your own judgment as to whether a piece of equipment will do what the manufacturer claims it will do, whether it will meet the needs you desire to have it fill, and whether it will give a good account of itself under certain conditions and kinds of treatment.

Visits of this sort will familiarize you with the terminology of the trade. When a salesman, in describing an instrument cabinet, informs you it is built with cold rolled sheet steel, back, top, and bottom, you will not look at him with a blank expression of ignorance. You will have seen and handled cold rolled sheet steel in the rough as it lay on the floor of the factory and, perhaps, after your visit, you will have supplemented the knowledge you gained by reading about the manufacture of cold rolled sheet steel in your encyclopedia, or, better still, by a visit to a steel mill, should you chance to be in the neighborhood of one.

Not the least benefit you will derive from such visits is a better comprehension of the care a piece of apparatus should receive and the manner in which it should be handled. You will, in consequence, be in a much better position to instruct your subordinates regarding its care and use than you would otherwise be.

In short, the sort of knowledge thus gained will enable you to do your purchasing with a sense of assurance and relieve you from being so largely dependent, as you would otherwise be, upon the representations of those who naturally are interested in selling you their particular product.

Helpful as the commercial exhibits at the annual meetings of the American Hospital Association are, and much as we urge hospital executives

to take full advantage of the facilities they offer for the examination and inspection of equipment, personal visits to the factories of manufacturers have certain advantages over the commercial exhibit which cannot be gainsaid. At the commercial exhibit you generally see the finished product. You can handle and inspect it. If it is a mechanical device, you can examine its mechanism and have an actual demonstration of how it works instead of depending upon a written description which is seldom satisfactory. You can have technical points explained that may be difficult to understand unaided. But at the factory, you see the raw materials or the component parts of a piece of equipment. You see how they are put together and what is actually involved in the manufacturing process. And to see a thing in process of making has distinct advantages over seeing the finished product.

The better class of manufacturers will welcome your visit and will arrange to have you escorted about their plants by men sufficiently well informed to answer such questions about their products, the materials used, and the processes of manufacture as you choose to ask them. Visits such as these are a phase of education hospital superintendents can ill afford to neglect.

THE RED CROSS BUREAU OF INFORMATION FOR NURSES

THE hospitals of America are obligated to accord their fullest support to any undertaking which seeks the betterment of the nursing profession and improves the opportunities of individual nurses for advancement. It is the purpose of THE MODERN HOSPITAL here to remind the superintendents of hospitals that their cooperation is needed in building up the work that has been begun among the nurses returning from war service by the Red Cross Bureau of Information for Nurses.

For the last twelve months the Bureau has operated a placement service for the returning nurses. Established in cooperation with the three national organizations of nursing, with its headquarters at New York City, the Bureau has rendered invaluable assistance to nurses and institutions throughout the country during the period of readjustment.

The work is to be continued permanently, for the benefit of the nursing profession and for the accommodation of the hospitals, public health agencies, and nursing services. The regular patronage of the hospitals is essential to the successful operation of a placement service such as the Bureau endeavors to provide. Hospitals everywhere should make it a policy to utilize the service whenever the procurement of nurses qualified for staff duty or special services becomes necessary.

What are the reasons why this should be a policy of the hospital? Briefly, these reasons may be stated in three matter-of fact propositions.

First: The Bureau of Information for Nurses brings to the institution requesting them, the women who are most qualified by training, experience, and inclination to fill the responsibilities of the regular and special positions on nursing staffs.

Second: This service is a direct channel through which an individual nurse may be assisted to a solution of her personal problem, which is to "find herself"—to secure for herself just the sort of opportunity that she most desires.

Third: The placement service of the Bureau, when utilized to the fullest extent possible, both by institutions and nurses, widens the horizon of the individual nurse, brings to the institution higher efficiency by the employment of more competent personnel, and elevates the prestige of the whole nursing profession. Along with this gain in the prestige of the nursing profession, the hospitals themselves begin to possess more attraction in the eyes of the young women who contemplate careers in that field of work.

These results will follow simply through the consistent and continued cooperation of all concerned.

The task of placement is the first and primary function of the Bureau, but not the only function. In its files, the Bureau now has accessible an extensive library of information regarding war-risk insurance for nurses, Federal reeducation and hospitalization of sick nurses, and requests for institutional nurses covering a wide range from staff nurse to hospital superintendent. To this Bureau, public health agencies as well as hospitals may present their needs for nurses for infant welfare, mental hygiene, medical social service, school nursing service, and industrial work. Complete information is furnished to student nurses regarding Red Cross scholarship and loan funds for assisting nurses to prepare themselves to enter various phases of the profession which interest them.

The poorest people on earth are those who make the most of what they have, and the least of what they are.

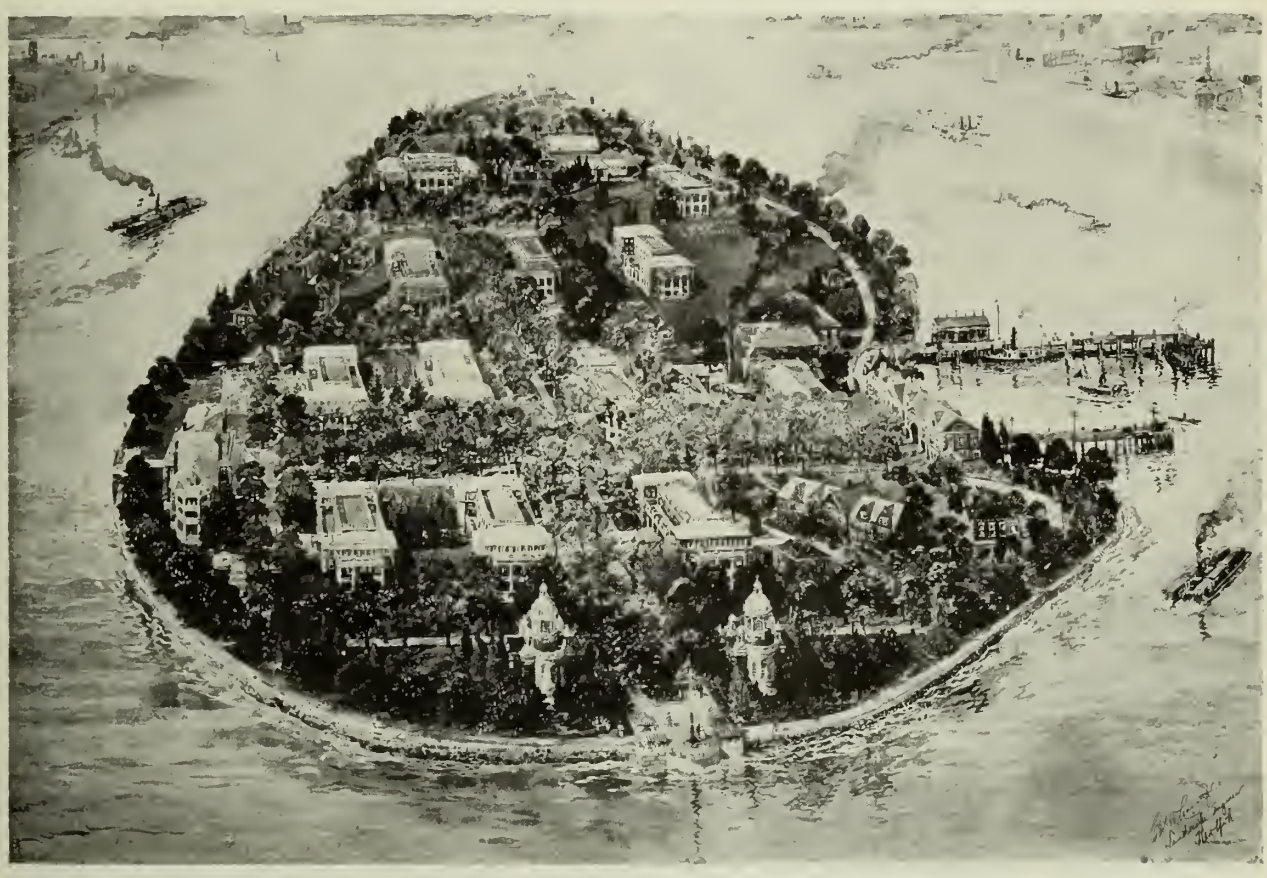
The doctor entered the patient's room in the morning and according to habit read the chart first. He was surprised to read: "2 a. m. Patient very restless. Nurse sleeping quietly."

THE LANDSCAPE TREATMENT OF HOSPITAL GROUNDS

By MR. CHARLES W. LEAVITT.

The subject of landscape treatment of hospital grounds is one which perhaps has not received as much attention as would have been given it if the greater number of our hospitals were not situated in cities, where extensive grounds are impossible. It is the tendency of the present time to take such institutions outside the built-up portions of cities, where the opportunities for rest and quiet are better. The advantages of such a step are self-evident, and the result must be that private institutions of this character, as well as public, will be situated in our suburbs rather than in our cities. The increased facilities for rapid transportation, both by private automobiles and public carriers, are removing the only objection to this.

New York City has used the islands near Manhattan as the location of municipal institutions of this sort, and early recognized the importance of layout in securing the best results from the money invested in the different plants. General plans for the development of North Brothers Island, Randalls Island, and other islands were made and have been carried out as fast as funds were available.



Riverside Hospital, North Brothers Island, N. Y.

Landscape Beauty Aids Recovery of Patients

The first duty of the landscape architect in laying out the grounds of a public institution of this sort is so to place the buildings that their exposure to sunlight and winds is the best possible. He must consider the prevailing winds of the locality, the atmospheric conditions, and the climate, maintain an open mind to the many suggestions given him freely by board of directors, doctors and superintendents, as well as by all who immediately become actively interested in any large building project. He must know the conditions of the soil and so place and plan the vegetable gardens and other productive features as to make the institution as self-supporting and as interesting to convalescents as possible. The utilitarian purpose of the layout is, in this case, uppermost, to be affected by the esthetic only in so far as it can be proved to those who jealously guard the public funds that such alteration of, and deviation from, the strict severity of utilitarianism is for the ultimate good of the inmates of the institution, will hasten their convalescence, and bring about their early departure.

Mental Effect of Fountains

The construction of a pool with splashing fountains and open-air pavilion is considered more for its excellent effect on the mental and physical condition of the patients than for its place in the scheme of the layout and its value as an esthetic unit in the plan. Usually, boards of directors for public institutions do not look kindly upon a few hundred square feet reserved for a tennis court for convalescents, doctors, and nurses, nor do gay flower gardens or expensive planting for effective mass and group appeal to them, especially if the institution is situated so far without the beaten track of travel as to make it easily accessible only to those who have some errand there. The bleak aspect of the grounds of some institutions of this sort is enough to make prospective inmates prefer self-inflicted physical punishment. On the other hand, not a few public institutions are quite famous for their external appearance and the improvement of the surrounding grounds.

As to the location of buildings, it is, of course, apparent that the power houses, laundries, stables, and other accessory buildings should be sufficiently removed from the patients' quarters to cause as little disturbance as possible. Nurses' homes should be as far removed from the scenes of their labors as is consistent with their being reached within a reasonable length of time. The main buildings and patients' quarters should be on the highest point of land, both for the advantages of elevation regarding air and light and for whatever pleasure may be derived from the view of the surrounding country.

Where circumstances permit, facilities should be provided, by the development of natural features, for the necessary recreation for all who live on the hospital grounds. A low marsh should be made into a pool and utilized for outdoor swimming or for some esthetic purpose, either as a water garden, a fish pond, or, if large enough, for restricted boating.

Provision for Open Air Sun Baths

An important feature, little used as yet in this country, is the provision for open-air sun baths for convalescents who need the beneficial effects of the sun upon the naked body. In several European countries, notably Sweden, this is common, with fine results, and it should be equally common with us.

AMERICAN HOSPITAL ASSOCIATION LISTS U. S. SURPLUS HOSPITAL SUPPLIES

The surplus supplies of drugs, chemicals, and surgical instruments held by the government are now being sold directly to hospitals in case lots according to official information from the Quartermaster's Department recently circulated in a bulletin signed by Dr. A. R. Warner, executive secretary of the American Hospital Association. Lists of the stocks of interest to hospitals are being furnished and all orders should be addressed to Col. L. M. Purcell, chief of Surplus Property Division, Quartermaster's Department, Washington, D. C., accompanied by certified check for the correct amount. Prospective purchasers are advised to determine carefully their needs and to consider combining with other hospitals in making purchases and splitting cases.

In accordance with its established rule, the government will not make any shipment of less than one original case or package and will not entertain any claim for breakage or deterioration in any package sold. The goods are generally in smaller individual bottles or packages than hospitals usually buy, but the cases are unusually large. Considering the larger containers usually purchased by hospitals, the prices average little more than half the prices now paid for like quantities, and some are considerably less than one-half the present market prices.

It was first suggested that the American Hospital Association take over these stocks and re-sell them to hospitals, but because the cost of handling by a syndicate would increase the price to the hospitals to practically that now paid, this plan was abandoned.

SUGGESTIONS FOR HEALTH LEGISLATION

By H. W. JORDAN, Chemical Engineer, Solvay Process Company, Syracuse, N. Y.

Health legislation is becoming popular with state legislatures. The tendency is to model it after fire, accident, and life insurance, which insure,—which protect—against loss of property or life by paying a sum of money to the insured in case of disaster. Such cash payments to offset loss have become so ingrained in our minds that we always think of insurance in terms of money. An example of this is the Davenport Health Bill which was before the New York State Legislature in 1919. The bill contained twenty-seven pages. One page was devoted to medical matters, one page to maternity benefits, and the remaining twenty-five pages to the funds and their administration. The bill was thus 7 per cent health and 93 per cent jobs and money. The only constructive feature it contained was the page relating to maternity benefits.

Kingston Avenue Hospital, Brooklyn, N. Y.

Health insurance can, and should be, of an entirely different sort. Insurance means to make sure. We can make health sure, if we intelligently apply scientific prevention of those conditions which we know are the causes of sickness.

As the Davenport bill did not pass, it is possible to present a bill of genuine health insurance, based on health education and disease prevention, and directed toward developing the highest personal self-reliance and health responsibility of the individual and of the physician. State or federal health legislation should include a definite and increasing proportion of advanced medical research. Sickness should be treated only as incidental to prevention of disease.

As means toward these results, the following suggestions are offered for consideration as sections of a health insurance bill.

Health Administration.—Exercise of the authority of health administration should be wholly the function of the State Department of Health. The provisions of the proposed bill should be carried out by that department, with such expansion of its functions, authority, and funds as public interests require.

Health concerns the welfare of every citizen. Legislation regarding it should be state-wide in application and free from class distinction. Health is not a function of the State Industrial Commission, nor of any other state department or commission, except the Department of Health.

Health Education and Publicity.—The State Department of Health should conduct permanent and constant work of education by the best mediums of publicity. Education upon all diseases and phases of health and preventive medicine should be maintained, preferably through the principal newspapers of the state. It should be a feature of the Sunday editions. The educational matter should be presented as paid advertisements, supported by a liberal amount of reading matter, the publication of which should be included in the advertising contract. Pamphlets and posters should be used where they are efficient, but the main publicity should be given through the newspaper and magazine press.

Such subjects as venereal disease and prenatal care should be discussed in a scientific, dignified way, with the proportion of publicity which their prevalence requires.

Annual Physical Examinations.—An annual physical examination should be required of every citizen, man, woman, and child. The examinations should be made by physicians who have demonstrated their fitness for this work, and should be done with extreme thoroughness. The physician should fill out a standard form covering every detail. In cases where desirable, examinations should be semi-annual or quarterly.

The purpose of the examination should be personal analysis and diagnosis. The person examined should be put upon his own responsibility and referred for treatment to his own physician, or to any group of reputable physicians.

Dental Examinations and Clinics.—These should be provided, and examination and cleaning of the teeth required semi-annually. Dental work should receive the conscientious and thorough attention which our knowledge of oral hygiene proves necessary for the maintenance of health.

Maternity Care.—Maternity care should be provided, under an arrangement which includes state compensation at two-thirds pay to women in industry, in a manner similar to the compensation for industrial accidents under the State Compensation Law.

Tuberculosis, Venereal Disease, and Similar Diseases.—All cases of these diseases in which public welfare requires such treatment, should be put under compulsory treatment, with hospital care.

Hospitals and Clinics.—A large part, possibly the major part of the work of the State Department of Health should relate to hospitals and clinics. There should be provision for strengthening all existing hospitals, of standardizing their methods and assuring them necessary financial means. In addition, new hospitals should be built and operated, to meet public needs as they develop.

The same principles apply to clinics. Existing clinics should be enlarged and new ones established, to provide not only for the cities but for towns and rural districts. The clinics should be given authority to assign cases in need of hospital treatment to the city or county hospitals.

Insanity and Idiocy.—Measures should be included for control and reduction of insanity and idiocy. The majority of these cases of mental affliction spring from preventable causes, mainly excessive use of alcohol and drugs, venereal disease, and from heredity.

Nutrition of Children.—Nutrition of children and allied activities relating to the health and normal physical welfare of children from birth to the end of their schooldays should be assured by a more efficient system of school nurses, with social service nurses working in conjunction with the parents and the state clinics; to the end that child health be fully developed by teaching and maintaining proper nutrition, care of the teeth and all similar attentions, which combined in practical work, assure normal childhood and healthy, wholesome body and mind in maturity.

Visiting Nurse Service.—Visiting nurse service should be provided for follow-up attention, particularly among people of moderate means, so that the work of the clinics is supervised at home, to the end that the recommendations of the clinic are faithfully followed by patients.

Medical Research—Scientific medical research should be required. Investigations by such institutions as the Rockefeller Institute should be supplemented by similar investigations of broad, group type, directed toward prevention of disease and conducted through the medium of the public hospitals and clinics; and through the compilation of comparative statistics extending over periods of years.

Funds.—The money for this public work should be raised equally throughout the state, without class distinction, and contributed one-third by employers, one-third by employees, and one-third by the state.

Allotment of the Funds.—There should be definite percentage allotment of the funds to some sections of the health work, to insure that the most important, though perhaps less popular, sections of it are adequately financed. For example, not less than two, nor more than 5 per cent of the funds should be allotted to advanced laboratory and medical research work and preventive medicine; 5 per cent should be allotted to dental clinics and oral hygiene; 5 to 10 per cent to education and publicity; 5 to 10 per cent should be allotted to visiting nurse service, and 5 per cent to rural clinics. The remainder should be divided as the needs of the work disclose. But these fundamental needs, upon which the entire structure of preventive medicine is built, should be assured their necessary proportion of funds.

Any assigned funds remaining unexpended at the end of the year, should revert to the common fund of the following year, and be allotted to the hospital division, one-half to hospital maintenance and one-half to hospital construction.

Health Administration.—State public insurance should be administered wholly by the State Department of Health, working as director and organizer, but not as medical practitioner. So far as possible the work of medical treatment, nursing, dental work, and all else, should be done by the people of the medical, dental, nursing, and similar professions, who should be free to develop their professional work without restraint or competition of the state, but under the impulse of the scientific research which in the past has helped perfect these professions, and which, under the proposed bill, should be advanced to the utmost by scientific research.

Each individual in the state should be made to assume full responsibility for his personal health. Free, or partially free treatment should be given to no persons, except those who are mentally or economically subnormal. An important underlying motive of the bill should be that it develops the personal responsibilities of each citizen and of all physicians in matters of health, to the highest attainable degree.

Health Education and Publicity.—The health educational work done during the war by the national Government and the State Department of Health, largely through the medium of posters and pamphlets distributed by manufacturers, has produced excellent results, but the methods were expensive and clumsy, and only a limited part of the population was reached.

The educational work should be conducted mainly through the daily papers, preferably the Sunday editions, and through those magazines of widest state and national distribution. The medium should be advertising, so that the press is properly paid for its work, but supplemented by a generous amount of educational reading matter. Social abuses result from ignorance and secrecy. They cannot exist under full publicity.

To a limited extent, some diseases and health conditions, particularly venereal disease and tuberculosis, can be given effective educational publicity through the medium of posters, and perhaps to a minor degree by pamphlets.

Annual Physical Examinations.—The work of the Life Extension Institute has proved the necessity and the value of annual, or more frequent, thorough examinations by reputable physicians. This work should be state-wide.

Although the methods and results would be identical with those of the Life Extension Institute, the state health activities would not injure, but would tend to increase the business of the Life Extension Institute and similar organizations, because people of means would prefer to have their examinations made by organizations with the high standing of the Life Extension Institute, rather than by individual physicians or at public clinics.

Dental Examinations and Clinics.—Dental examinations would be included. As the value of dental care is better understood by the public, it is desirable to emphasize dental and oral hygiene by special reference to dental clinics as an aid to the educational character of the legislation. This is also necessary because the profession of dentistry is separate from that of medicine, and is conducted by men who are not popularly recognized as physicians, though they are men of equal scientific standing.

Maternity Care.—No argument is needed to convince one of the absolutely vital necessity of highly intelligent maternity care. Two features of American life are arising to overwhelm us. One is the swift decline in our rural population, which threatens to deprive us not only of food, but of country-bred Americans of the best stock. The other,—a city influence,—is decline in the birthrate, with deliberate avoidance of parenthood.

Tuberculosis and Venereal Disease.—The necessity of hospital, and in certain cases compulsory treatment for tuberculosis, venereal disease, and similar diseases, is acknowledged by all who are sincerely interested in promoting public health.

Hospitals and Clinics.—Dr. Richard Cabot has stated that among some one hundred fifty recognized diseases, there are less than a dozen that are known with certainty to respond to treatment with drugs; and that the remaining cases are best treated by putting the patient in bed, in a properly lighted, well ventilated room, with abundance of pure water to drink and a moderate amount of simple, wholesome food. In other words, as he says, hospital treatment is the most effective means for restoration of health.

Conditions of city living, and to a large degree those of country life, are increasingly unfavorable to proper treatment of the sick. Not only does the sick person fail to get proper care at home, but his spirits are depressed and his recovery delayed by the routine of the household. The affairs of the home are upset, and the well members of the family become impatient and irritable through the presence of sickness. Financial economy and health efficiency require that we provide far more extensive facilities for first-class hospital treatment than exist at the present time.

Idiocy and Insanity.—The cost of the care of the insane in New York State mental hospitals is $11,000,000 a year. The care of that portion of idiocy confined in our state institutions is $1,000,000 a year. The total cost is $7,000,000 a year as only one-seventh of the idiocy is restrained in institutions. These amounts are three to four times as great as they were twenty years ago. The annual total, $18,000,000 a year, equals one-eighth of the total state budget, and is one-third the amount of the recent state issue of $50,000,000 of fifty-year bonds for highways. Insanity is 90 per cent preventable. If that efficiency were attained, it would release $16,000,000 annually in New York State alone. This sum is sufficient to build every year five hundred miles of new, modern concrete state highway, sixteen feet wide, a road from New York through Albany to Buffalo, and back to Rochester.

Insanity and idiocy are expensive luxuries.

Nutrition of Children.—Much maudlin sentiment and misdirected public charity are devoted to feeding undernourished children and to other well-meant but ineffective work in child hygiene. These activities should be standardized and made scientifically efficient. Recent experiments in New York and other cities show that undernourished children are quite as common among the well-to-do as among the humble; that under-nutrition and similar child ailments are matters of attention requiring the cooperation of parents, the schools, and the state. Proper nutrition will help reduce the cost of living by teaching the best use of the palatable, cheaper foods. Research by MacCullom and others has proved that nutrition is far more a matter of correct combinations of food than it is of the calorific value or the quantity of food.

Visiting Nurse Service.—Visiting nurse service is absolutely essential for the proper maintenance of child hygiene and all work of the clinics. It should cover such diseases as tuberculosis and venereal disease, which are nearly hopeless to bring under control, unless subject to supervision and authority.

Health conditions in the rural districts require visiting nurse service even more than in the city. Visiting nurse work is often regarded as sentimental or ornamental. Actually it is as fundamental as is scientific research.

Medical Research.—Scientific medical research has created modern medicine and surgery. Many phases of pub-

lic health do not lend themselves to laboratory investigation, but rather to group and popular study through the medium of statistics, compiled over considerable areas and extending through several years. This type of broad research should be one function of the state. It should supplement intensive investigation upon specific diseases, in the manner of the researches conducted by the great hospitals and by the Rockefeller Institute.

Funds.—Public health is not a matter of the industrial employers, nor employees. The funds should be raised from all employers and employees without distinction, and the state, from its general tax levy, should contribute an equal portion, one-third. If the underlying principles of the proposed health legislation be strictly adhered to by concentrating the state work upon health education and disease prevention, and by making each individual strictly responsible for his own physical well-being through the protection of frequent, complete, physical examinations and a thoroughly organized and perfectly balanced system of medical practice available to every person in the state, every one of us, except the few who are mentally or physically subnormal, would be rewarded by so many additional days of health and earning power that we could easily be able to pay all our own health bills. Our state health system would be a pay-as-you-go enterprise, and not a degenerative charity. Its public cost would be mainly that of the State Department of Health organization, with its function that of conducting and directing all health activities, under a progressive, enlightened and scientific system in which each patient, every one of us, pays his own health bill.

Allotment of the Funds.—Certain features of the work, such as research, dental clinics, education, and publicity, visiting nurse service, and rural clinics, are necessary to its maintenance and success, though they are not so spectacular and popular as hospital treatment and other features. On account of their importance, they should be assured their proper proportion of funds. This is in accordance with the principles of many highly successful commercial houses, which allot a fixed percentage of their budget or so many cents per ton of product, to advertising, or to similar specific fundamentals of maintenance and growth of the business, such as chemical research.

These ideas are submitted as suggestions for discussion and action, in the hope that the various interests that sincerely desire practical health legislation, rather than class legislation of the Davenport sort, may unite upon a bill and secure its enactment.

HEALTH INSURANCE*

By ANDREW R. WARNER, M.D., Executive Secretary, American Hospital Association, Chicago, Ill.

The general impression received by hospital workers and others is that health insurance is an extremely deep and complicated theory and that the application of it to our present society will be almost revolutionary. Although it is easy to understand how this impression is given it is also clear that it is in the main unjustified. The terms social insurance and health insurance are sometimes confused. By the term social insurance is meant any form of insurance which is generally used and which has a direct bearing on the every-day life of people. This, therefore, includes insurance against industrial disease or accident, against unemployment, against sickness, and against any other common or general calamity. Health insurance, then, is a form of social insurance and is technically the insurance of individuals against sickness and the results of sickness.

The principle underlying health insurance is not different in any way from that underlying any other form of insurance. The public now generally understands the principle of insurance, that it is simply a means of distributing losses, and that each individual must pay a sufficient sum annually to cover, in the aggregate, all the losses incurred by the insured, plus the cost of administration, and, in the case of commercial insurance, a profit to the company. All understand this principle and use it to protect themselves from the crushing loss by fire, or other calamity. We all keep our automobiles insured that the occasional big loss may not fall on us. The same principle is employed to insure against accidents, both "voluntary commercial," which means the accident policy which we personally purchase, and also "public compulsory," or the state industrial accident insurance of many states. There are commercial companies who write policies protecting against sickness; social organizations, as lodges, and other organizations, use this same principle as a service to its members who recognize the need of protection against illness and the advantages from making small monthly payments to secure this protection, yet realizing fully that the accumulation of the monthly payments must meet in full all the losses that are sustained.

The Points of Controversy

There is nothing new or unusual about the principle of health insurance. All controversies have been over the details of a general or compulsory application. In fact there has been a definite increase in the volume of the commercial health insurance, generally called "voluntary health insurance" in contrast to general or "compulsory insurance." The usual idea is to make the insurance compulsory for all wage earners but the definite plans are often such as to include only those working in groups which means only those engaged in organized industry.

There were at first some questions raised as to the accuracy with which losses could be foretold. However, these have been answered to the satisfaction of all. We know that working men on the average will lose nine days of work annually from illness and 20 per cent of the working men will have an illness each year which will keep them from work a certain time. We know that 65 per cent of those ill more than seven days, the usual waiting period, will be back at work in less than four weeks; that 19 per cent will require from four to eight weeks, 7 per cent from eight to twelve, 6 per cent from twelve to twenty-seven weeks; and that 3 per cent will be ill for more than six months, and 1.29 per cent for over a year. It is, therefore, quite simple to figure out the amount of illness to be expected in a large number of working men. From the duration of the illness and the benefits given it is easy to figure the cost. The general idea is to compensate for loss of earning power as well as the temporary momentary loss.

It is but simple arithmetic to figure the loss from wages; it is possible to figure the cost of medical service comparatively accurately, and, given the governing rule, the extended and permanent loss of earning power can also be figured quite accurately. To those are added the cost of administration and then clear and detail figures for the cost of health insurance for all the working men of a state can be produced. So far, health insurance is simple in principle and the application and operation thereof also seem equally simple.

* A paper read before the First Michigan Hospital Conference, Lansing, Mich., Dec., 1919.

As health insurance is simply a distribution of the losses, money must be collected from or indirectly for each insured man. Here is the first controversy. There are those who maintain that the working man, if he must pay for health insurance, must be the sole judge as to where he will purchase the same, or whether he will spend his money in this way or not. There is, of course, some justification in the argument that a citizen of this country shall himself determine where he will purchase any commodity and there may be some justification in a claim that a citizen may or may not purchase a commodity as he sees fit. But on the other hand if he does not see fit to protect himself against sickness and a sickness comes to him, the other citizens of this country are compelled by a sense of humanity to make good his loss in whole or in part in the name of charity. The practical question becomes this: if the citizen refuses the opportunity to purchase health insurance and thus carry his own personal risks, he is not playing the game squarely with his fellows and therefore the fellows have the moral right to protect themselves against loss through him by requiring that he protect himself. In order to avoid possible arguments with labor leaders, who are always quick to insist upon the constitutional rights of the laboring man, it is usually planned that the premium for any general or compulsory health insurance be paid, at least in part, indirectly by the employer and a part taken directly from the pay envelope. These plans have the active support of many of the friends and leaders of the working man.

Some Disputed Questions

In such plans, however, it is quickly realized that the industry is in fact paying for all sickness. This has brought forth from the leaders of industry questions as to the desirability and fairness of taxing industry alone for all the sickness of the working man. Industry has not always looked with favor on the payments for medical services and for loss of earning power in addition to lost wages. Industry has learned that the total cost of medical service depends quite largely on the character of medical service rendered the sick or injured man. It is argued that if industry must pay for medical service and for the resulting permanent disability that industry should have something to say as to the quality of medical service given each insured person. It is also the desire of those favoring health insurance to provide each working man with high-class medical service that his illness may be as short as possible, and permanent disability reduced to the lowest possible amount.

It is quite likely that industry and the advocates of health insurance could agree on this point, but such views have met general and bitter opposition by the medical profession. This controversy in England resulted in the so-called panel system. Under this system the sick working man could employ any physician on the panel for his district. The theory of the panel was that only competent physicians should be placed on the panel, but the practice is to include all reputable physicians. One must admit that it is quite difficult for a state by one decision to license a man to practice general medicine and surgery and say to him by another "you are not competent to take care of state cases." This may indeed seem absurd, yet it is even more absurd to assume that every practitioner of medicine at the time of beginning his work and for ever after, is able to treat with such skill all kinds of illness and all accidents and do all surgery so successfully that illness and disability will be reduced to a minimum. It is true that the development of group practice and adequate institutional facilities will offer middle ground, but these are not yet here. As long as the general practitioner looks upon the persons who seek his advice as "my patients" regardless of the needs of these patients or his own professional ability to render the service needed, industry will naturally shy at any plans which will require it to pay in full for all preventable illness not prevented and for all unnecessary disability.

It has been suggested that this controversy be met by taking a part of the cost of health insurance from sources outside of the industry employing the insured or by general taxation. This only raises the question as to the extension of insurance to others. It must be remembered that the advocates of health insurance have usually limited the scope, including in the compulsory class the wage earners only. Admittedly there are others who should use and would be benefited by the plan. It must be admitted also that there are many now contributing to the tax funds who could in no way receive personal benefit from health insurance. Thus the first controversy has only been changed for a second and less tangible one.

There have been many other controversies of less practical importance, *i. e.*, as to the constitutionality of various provisions, possible and probable malingering, the extension of the protection to the family of the insured, the question of the carriers, state ownership or state supervision, doubts as to the present ability of the hospitals and other medical facilities to carry the load, and others.

Advances in Group Practice

One by one these controversies will be settled or adjusted and health insurance under some plan will become as general as fire insurance is today. We as hospital people are especially interested. We may expect the development of the same attitude toward the hospital in the case of insured sickness as has come in the case of insured accidents. There is now a general tendency for industry or for the state department responsible for the care of the injured man and for the result of the injury, to favor the care of all cases either by a hospital or by firms of physicians, practising in a working cooperation, which includes men skilled in the care of all kinds of cases. This is simply the group practice of medicine.

Some have attempted to picture the hospital work of an industrial community under a health insurance designed to cover all sickness among the workers. In such a picture three points stand out as fundamental: First.—An extensive increase in the volume of hospital work and a closer working relation between out-patient or ambulatory service with hospital bed service. Second.—A rapid advancement in group practice on the part of physicians in order to compete with the hospital. Third.—A direct and powerful stimulus to all kinds of public health work. The cost of all illness would then be charged to industry, to the people, or to the state in terms of dollars and it will be promptly recognized that it is cheaper to prevent illness than to pay for it. Some regard this as the primary question, conceding at once that it is cheaper and better to prevent illness than it is to compensate the individual for it. Insurance does not lessen the cost: it only transfers the payment to others or distributes it. These argue that if one of the primary benefits of health insurance is to create a general demand for sickness prevention by the general realization of the cost of unnecessary sickness, then why not educate the public in this directly, thereby starting prevention at once and postponing health insurance until the hospitals and the medical machinery have had more time to develop so as to be

ready for change. All agree that the medical profession and institutions are developing rapidly, but that even more development is needed to carry a general health insurance.

Either policy, sickness prevention or health insurance, makes a social program larger than any state has yet attempted, and it is likely that we will develop one at a time. The public health work is already under way and the policy of sickness prevention would require only a further development of existing machinery. But on the other hand, to carry sickness prevention to such a degree as to make it in any way a substitute for health insurance to the individiual or in fact to the state, is now practically impossible. The people will not submit to the necessary examination and supervision.

When prominence is given these three fundamental points, conditions will necessarily develop under which the life of the hospital worker will indeed be strenuous. There will be competition between hospitals based upon merit of work. Real records will be kept in a different spirit and with a different intent. Hospitals will become known not for the beauty of their buildings or for the wealth of their endowment but for the percentage of leg fractures they can turn out without a permanent limp, for the number of crushed hands they can save to work again, and for the number of their patients who leave without requiring the services of an undertaker. Demands for hospital "standardization" or improvement will come from without not entirely from within. Hospital administration will become a real specialty in medicine.

In the face of these changes amounting almost to internal revolution, will the hospitals and the hospital people from apathy, lack of interest or understanding, or for any other reason keep entirely away from the committees of the state legislatures trying to solve some of these controversies in the interest of public welfare and to write a health insurance law? We hope not. The predicament of the hospitals under some of the state industrial accident insurance laws tells us too plainly the penalty for such in-action.

CAREER OF DR. CHRISTIAN A. HOLMES CLOSES IN 69TH YEAR

After a career of indefatigable activity in his chosen profession, culminating in service of nearly a year and a half in the army cantonment at Camp Sheridan, Ohio, Maj. Christian R. Holmes, one of the most eminent figures in the medical history of Cincinnati, died January 9, at the Post Graduate Hospital, New York City, where he had been a patient for four months. He first entered the hospital for rest and observation on account of a low physical condition supposed to be due to his hard work during the war. After a month, he underwent an operation for appendicitis, and subsequent complications resulted in his death.

Dr. Holmes was born in Denmark in 1857 and received his early education in that country. Later, he studied in Germany and in the United States. He was graduated from Miami Medical College, Cincinnati, in 1886, and served as intern at the old Cincinnati Hospital during 1885 and 1886. His studies in the diseases of the eye, ear, nose, and throat, took him to Holland and Germany.

From 1888 to 1899 he served as opthalmologist and otologist of the Cincinnati Hospital, and as professor of otology of Miami Medical College from 1890 to 1904. He also served as ophthalmologist at the Laura Memorial Medical College and the Presbyterian Hospital from 1892 to 1903. His contributions to medical literature were generous.

Dr. Holmes also held many offices in medical and allied associations. He was president of the American Academy of Ophthalmology and Oto-Laryngology in 1901 and 1902; vice-president of the American Medical Academy in 1902 and 1903; chairman of the section on laryngology and otology in 1904 and 1905; chairman of the section on ophthalmology in 1905 and 1906; president of the American Laryngology, Rhinology, and Otology Society in 1908

The late Christian R. Holmes, Cincinnati physician, who was a builder of the Cincinnati General Hospital.

and 1909, and a member of the American Ophthalmological Society, American Otology Society, American Laryngology Society, and of the Cincinnati Academy of Medicine.

Skilled in his surgical art, honored by his confreres, and revered by his patients, Dr. Holmes is said to have really first found himself when about a dozen years ago he began the erection of the Cincinnati General Hospital which, together with the Ohio-Miami Medical College, stands as a great monument to a great man. In making himself master of the intricate and complex problems of this great undertaking, he found real self expression. The urge of service to his city, his daring dreams of its future medical needs drove him on in spite of all opposition, and neither political nor financial obstacles stood in the way of final accomplishment. At his own expense, he visited the capitals of Europe to collect data to guide him in planning what is a well nigh perfect institution judged from present day standards. Commissioners from other cities in the United States and in Canada have been sent to Cincinnati with a view to obtaining information for construction of their own hospitals.

The merger of the two medical colleges which was a part of his plan to make Cincinnati the medical center of the West was accomplished in 1909 when they were made an integral part of the University of Cincinnati.

The creative energy of Dr. Holmes was unsatisfied by

the completion of the hospital, and focused on the construction of a great medical college to house the increasing student body attracted to the new hospital. As he could not again go before the people for a bond issue, he proceeded to raise the money among his friends. The building was erected on the hospital site and, like its neighbor, is of modern construction with ample facilities.

In order that these two institutions might maintain their integrity as institutions of learning free from political interference, Dr. Holmes helped to frame the city charter which made the medical department of the hospital a part of the university whose trustees have the sole right to elect the staff and supervise the nursing department.

In connection with his other self-imposed duties, he found time in 1914 to wage a campaign for another bond issue of $50,000 with which sum were built an administration building, nurses' home, dining hall, children's building, power house, and stables which transformed the old unsanitary branch hospital into a place of beauty.

He was commissioned major in the Medical Officers' Reserve Corps in 1917 and was placed in charge of the eye, ear, nose, and throat department at the Base Hospital, Camp Sherman, where he remained in active service until March, 1919. The hospital had just been erected and its equipment was incomplete, so Dr. Holmes, rather than wait for the slow acquisition of necessities through government channels, purchased them with his own funds. It is estimated that fully 500 draftees were made fit for almost immediate service through his prompt action.

The new Department of Industrial Medicine and Public Health initiated in the Medical College last spring was his latest enthusiasm. Because of his interest in the hospital and college, Dr. Holmes had planned to retire from active practice and devote his entire time to the two institutions. When he realized he must leave his great work unfinished, he wrote letters urging the people of Cincinnati and the faculty of the Medical School to continue to exhibit a firm purpose to carry on in a way that would enlist the support of the Rockefeller and Carnegie Foundations, representatives of both having been interested in the project by Dr. Holmes. Since his death there are those who say that this hope will become a reality with an endowment known as the Holmes Fund in his memory.

Indicative of the admiration which his efforts elicited is the following by Dr. Henry Pritchett, president of the Carnegie Foundation: "For his vision, his untiring energy, and for his clear and sure judgment of medical needs, Dr. Holmes deserves at the hands of his countrymen the highest commendation. That he should be able to bring about in Cincinnati so splendid a result, one in which medical teaching and research cooperate successfully with the public hospital, is one of the great contributions to medical education in America."

JOBS FOR NURSES AND NURSES FOR JOBS

"Jobs for Nurses, and Nurses for Jobs" still remains one of the aims of the Red Cross Bureau of Information for Nurses, as it completes the first year of its organization.

Established in cooperation with the three national organizations of nursing, with headquarters at the port of debarkation, 44 East Twenty-third Street, New York City, and in close communication with the hospitals and institutions in all parts of the United States, the Bureau of Information has been in an unequaled position for service. In its files is now represented information regarding war-risk insurance for nurses, Federal reeducation and hospitalization of sick nurses, and requests for institutional nurses covering a wide range from staff nurse to hospital superintendent. To this Bureau public health agencies present their needs for nurses for infant welfare, mental hygiene, medical social service, school and industrial work. Information will also be given regarding Red Cross Scholarship and Loan Funds for assisting nurses to prepare themselves to enter various phases of the profession which interest them. From the wisest hospital administrator to the youngest high school student who "wants to know how to become a nurse," from the little rural communities in Vermont to the cotton mills of the South, from the hospital wards of New York City to the University of California, where several of its registrants are taking postgraduate courses, the Bureau of Information stands ready to advise you regarding the opportunities which await you.

Will you not write today to the Red Cross Bureau of Information for Nurses, 44 East Twenty-third Street, New York City, New York?

WAR DEPARTMENT AND RED CROSS COOPERATE IN HOSPITALS

The American Red Cross, as an officially recognized branch of the service, will naturally continue its work among the men in service. The War Department has issued an official bulletin embodying the specific requests for the continuance of Red Cross service. Not only will the organization "continue to act as a connecting link between the enlisted men and their families, as during the recent emergency," but it will also continue its work of reconstruction and entertainment in the hospitals.

For the convalescents, the Red Cross will continue to provide leadership for the development of music and of amateur theatricals, will give moving picture shows, concerts and musicales, and will organize and supervise social functions, such as dances. Fruit, flowers, tobacco and cigarettes, and writing materials will be supplied, as well as a full equipment of indoor games, such as cards, checkers, chess, dominoes, and crokinole. Stereoscopes and a supply of photographs, chosen with particular reference to their educational value, will also be furnished by the Red Cross.

Outdoor games of all kinds will be organized, and arranged and modified to suit the needs of the different patients. Such activities as rope-whipping, knot-tying, tree and flower identification, route sketching and signaling will be promoted.

In the wards, in addition to the games and musical and motion picture entertainments, the Red Cross will try to furnish the patients with the newspapers from their home towns, and will continue the distribution of books, magazines and other reading matter.

The communication service, as established in France, and later extended to hospitals in the United States, is to be continued. This service notifies the families of patients from time to time of their condition, writes letters for them, and acts in every way as a connecting link between the sick man and his relatives.

In the Navy as well as in the Army, the Red Cross work will go on, and the same request has been made by the Navy Department for the maintenance of the Red Cross Bureau of Naval Relief Work in ports and hospitals.

The fifty-five base hospital units organized by the Red Cross and turned over to the Army and Navy will be reorganized on a peace basis and put on a reserve list, both for national emergencies and as a measure of military preparedness.

This work with the Army and Navy is of course decreasing as the men are discharged from the hospitals. By the middle of 1920 it is estimated that the fourteen general army hospitals now operating will be reduced to their peace-time number of six or seven. But even with the Army on a peace basis, the need for the special service of the Red Cross will remain, and the organization will take a definite place as a permanent branch of the armed forces of the United States.

"It was a tremendous relief to me in my responsibility in Washington to know that we are going to have an experienced body such as the Red Cross to continue just those activities within the Army camps that we would find the most difficult to accomplish," said Colonel Rees, chief of the Educational and Recreation Branch of the Army. "We can take care of well soldiers, we can organize for that, but the peculiar ability to encourage and raise the spirit of convalescents so that their recovery is certain, is a matter in which your organization is expert, and which we would find most difficult to accomplish without your help. It is a source of great assurance to us to know that this world-wide organization of the Red Cross, which performed miracles during the World War for the benefit, not only of the American Army, but for all armies, and I think we may say for all mankind, is with us in our smaller problems in time of peace, and is going to continue to aid us and be an inspiration to us for work of similar kind which we must now carry forward on our own responsibility in peace time."

HOSPITALS OF NEW YORK CITY TAKE PROGRESSIVE STEP

As the outcome of a meeting of the staffs of the hospitals of the Department of Public Charities in New York, held at the Academy of Medicine on the evening of January 23, plans were adopted for a review each month of the clinical records of these hospitals by their respective staffs. The medical profession in New York has long been aware that these hospitals maintain adequate case record systems for all patients; also that the laboratories of these hospitals are well equipped, well managed, and dependable. The one thing that remained to do was to institute staff meetings at these hospitals at which clear, concise reviews of what each staff had accomplished for the right care of its patients each month should be fearlessly considered. These staffs agreed unanimously that the time had come for such meetings, and without a single note of dissension, the plan was carried through.

The hospitals represented in this progress are the Metropolitan Hospital, Dr. Walter H. Conley, superintendent; City Hospital, Mr. Charles B. Bacon, superintendent; Kings County Hospital, Dr. John F. Fitzgerald, superintendent; Cumberland Street Hospital, Dr. Jacobs, superintendent; Coney Island Hospital, Miss Maud J. Kean, superintendent; and the Greenpoint Hospital, Dr. Raymond G. Laub, superintendent. The Bellevue Hospital, of which Dr. George O'Hanlon is superintendent, also joined in the plan. The entire group controls about 7,000 beds.

Good will and enthusiasm characterized the entire procedure. Both at the meeting held in the Academy and at other sessions at which the matter was considered, Commissioner Bird S. Coler sought the advice of the superintendents of the hospitals and of the staffs, and when, with the approval of all concerned in the new plan, he issued the order to put the plan into effect, he struck at the very purpose of the hospitals. He began his order as follows: "Pursuant to the end that all patients in the hospitals under the direction of the Department of Public Charities receive the most efficient care known to the respective staffs of the hospitals, the following orders are issued:"

Following this statement, the Commissioner outlined the plan of the staff meetings. It is to be expected, naturally, that with further experience the data reviewed each month at the staff meetings will be adjusted to the needs of each institution. It is of interest, however, at this time to record the plan with which these hospitals begin their staff meeting programs. The data to be considered each month are as follows:

ANALYSIS OF HOSPITAL SERVICE

for month ending.....

DISCHARGED

Cured	
Improved	
Relieved	
Unimproved	
To return for secondary operation	
Admitted for diagnosis only	
Deaths within 48 hours	
Deaths institutional	
Released	
Labor	
Newborn	
Total discharged	

DIAGNOSES

Provisional and final agree	
Provisional and final disagree	
Discharged with additional diagnosis	
Discharged with no diagnosis made	
Labor	
Newborn	
Total discharged	

INFECTIONS

Institutional		On Admission	
Medical		Medical	
Surgical		Surgical	
Obstetrical		Obstetrical	
	Total infections		

CONSULTATIONS

Asked and obtained	
Asked, not obtained	
Indicated, not asked	

DEATHS		AUTOPSIES	
Medical		Medical	
Surgical		Surgical	
Obstetrical		Obstetrical	
Newborn		Newborn	
Stillborn		Stillborn	
	Total deaths		Total autopsies

In addition to the foregoing data, analyses are also called for, first, as to causes of death and, second, as to records of patients discharged as unimproved.

A SHORTAGE of forty thousand trained nurses in the United States created a serious situation during the epidemic, and a campaign has been begun to enroll sixty thousand workers. While the epidemic was at its height women who had taken a short course offered in many cities, joined the corps of trained nurses and worked valiantly to check the spread of the scourge. Mobilization of all Red Cross nurses in the southern division was ordered. (Photos by Underwood & Underwood.)

THIS page illustrates some of the reasons why the epidemic of influenza this year failed to take so heavy a toll of human life as it did two years ago. Municipalities, aided by science, have put up a determined fight, with the result that the number of fatalities has been much smaller than when this plague first made its appearance. In the laboratories, white-capped and gowned men and women labor to perfect a serum which will achieve the desired results. This year three-fourths of the population of the world have been afflicted, but owing to a better understanding of how to treat the disease, the number of deaths has been materially reduced. In making experiments in the laboratory, white mice are used to test the serum. Funds are to be provided by Congress, if a resolution which has been introduced is given favorable consideration, to afford specific knowledge of preventive measures.

GROUP ACTION HELPS RAISE RATES OF MILWAUKEE HOSPITALS

By C. W. MUNGER, M.D., Superintendent, Columbia Hospital, and Secretary, City Hospital Conference, Milwaukee, Wis.

Milwaukee hospitals in common with those of many other cities, were for years lacking in cooperation, in spirit, and in deed. Being a city of more than a half-million population, Milwaukee has needed and loyally supported its numerous institutions for the care of the sick. Heretofore each of these hospitals has held itself aloof and a spirit almost savoring of competition has prevailed.

The city has eighteen hospitals, not including hospitals for mental diseases, sanatoriums and kindred institutions. They may be divided as follows:

County Hospital	1
Municipal Emergency Hospital	1
Children's Hospital, private, charitable	1
Infants' Hospital, private, charitable	1
Maternity Hospitals	2
Non-sectarian	1
Roman Catholic	1
Private General Hospitals	10
Lutheran	2
Roman Catholic	3
Jewish	1
Non-sectarian	4
County Tuberculosis Hospital	1
Municipal Isolation Hospital	1

Early in 1919, a series of meetings of hospital people was held at the office of the Commissioner of Health. Out of these, there grew an organization called "The Free Conference of Milwaukee Hospitals." As stated in the constitution the purpose "shall be to confer upon questions of mutual interest to institutions of this character and to cooperate in the interests of hospital needs of the community."

There was some difficulty in the beginning in getting all of the hospitals to participate in the movement. This difficulty, has not at present, been entirely surmounted, but those interested feel that it is only a matter of time until every hospital will be vitally concerned.

Personnel and Administration

A chairman and a secretary-treasurer are the only officers. The association proper is composed of three representatives of each hospital. The hospital boards may appoint such persons as they desire excepting that the superintendent is *ex-officio* a member. Most of the hospitals are represented by the superintendent, one member of the medical staff, and one member of the governing board.

Monthly meetings are held at which all types of topics are discussed, in addition to a formal program which is prepared by a very efficient committee. Much has been accomplished even in the short time that the conference has been in existence. The question of shortage of pupil nurses has been thoroughly discussed and a committee appointed to put the advantage of the nurses' training schools before prospective high school graduates and other eligible young women. The question as to how to secure and retain good interns has been a topic. Excellent papers on out-patient and social service work have been delivered by representatives of the Milwaukee Children's Hospital. A question box is to be inaugurated and round table meetings are to be held. Future programs are planned on occupational therapy and on hospital medical records.

The association has already taken up the matter of centralized purchasing for institutions. A considerable volume of information concerning this subject has been collected. Amounts of possible economies are being computed by obtaining estimates from various firms handling hospital supplies. The purchasing department of the city of Milwaukee has offered its assistance and some sort of a purchasing arrangement will, no doubt, be arranged before the end of 1920.

Group Action

The all important subject of how to meet the constantly increasing cost of commodities has been a live topic in several sessions. Each of the institutions represented has given some helpful suggestions in this regard. By means of group action it has been possible to increase hospital rates for all excepting charitable cases to somewhere near actual cost. Every hospital superintendent has known that increases in rates were justified but few institutions cared to take the initiative in bringing about this change. It was decided at the December meeting that patients under the Workmen's Compensation Act, which requires employers to pay their employees' bills, should not be accepted by hospitals for less than the ward *per capita* of the institution in question. Directors of some of the hospitals took the trouble to explain to heads of large corporations that they, by former hospital rates, had actually accepted charity for their patients who were treated during 1919. Some of these corporations sent Christmas checks to the hospitals sufficient to make up the difference between the amounts they had paid during the year and the hospital's *per capita* cost.

A bright and useful future is a certainty for associations such as this. Milwaukee hospital people are only beginning to learn the value of cooperation and concerted action, as against the previous policy of "splendid isolation."

ANÆSTHETISTS FORM RESEARCH BODY

Announcement is made of the launching of the National Anæsthesia Research Society, with the avowed purpose of collecting data and prosecuting original research in this field of medicine. The objects of the Society, as set forth in the constitution, are:

"To promote the science of anæsthesia and to enable its members, after first having obtained the approval of the Society, to submit without prejudice to the dental and medical professions, any views, findings, or accomplishments they have attained; to obtain from all available sources such information as is now extant concerning any material, liquid or gas, known to have anæsthetic properties; to arrange, in cooperation with dental, medical, and anæsthesia associations for the preparation and delivery of suitable interesting and educational papers on the general subject, or relative to some particular anæsthetic; to use influence to prevent the publication or circulation of any false or unauthentic statements concerning any and all conditions, symptoms, or phenomena prevailing during or after anæsthesia by any anæsthetic, and to prepare and distribute on request, forms on which such information can be tabulated with uniformity; to distribute by pamphlet or publication, as its funds may permit, and its governing powers authorize, such reliable data as it may collect or obtain through its members or others interested in the subject of anæsthesia, for use by the medical and dental professions; to cooperate with state authorities and other bodies in the preparation of suitable legislation to safeguard those to whom anæsthetics are administered as well as those called upon to admin-

ister them; to use its influence in every way and to give its aid toward the advancement of the Science of Anæsthesia."

The Research Committee which will have supervision of original work and the editing of material designed for the profession and professional press, is headed by F. H. McMechan, A.M., M.D., of Avon Lake, Ohio, editor of the Quarterly Supplement of the American Year Book of Anæsthesia and Analgesia. W. I. Jones, D.D.S., president of the Inter-State Anæsthetists' Association, will have an active part in the committee's work. Representative anæsthetists of the country, who have distinguished themselves by research and progress in their field, are being invited to join the committee.

The Society has been endowed with limited funds which will permit it to demonstrate that there is a field of usefulness for it.

FILL 730 MEDICAL CORPS VACANCIES IN EXAMINATIONS, MARCH 15

The Surgeon General of the Army announces that preliminary examinations of all eligible applicants for appointment in the Medical Corps, United States Army (regular) will be held on March 15, 1920, at various points throughout the United States, in the Philippine Islands, Hawaiian Islands, Panama Canal Zone, and Porto Rico, and in France, Germany, and Siberia, of applicants in the military service.

The essential requirements for eligibility to take the examination are that the applicant shall be a citizen of the United States, of good moral character and habits, between twenty-two and thirty-two years of age, a graduate of a medical school legally authorized to confer the degree of Doctor of Medicine, and shall have had at least one year's post-graduate hospital internship. The requirement that an applicant for appointment in the Regular Medical Corps shall have served at least a year's post-graduate internship, is waived in the cases of those applicants who have satisfactorily served as commissioned officers for a period of at least one year during the world war.

While the present maximum age limit for appointment in the permanent Medical Corps is fixed at thirty-two years, it is believed probable that by prospective legislation that limit may be modified somewhat in the cases of those applicants who have had military service during the world war, and who are beyond the present age limit. Any such person may, therefore, submit application regardless of his present age, in order that he may be given opportunity for examination, should the suggested change be made prior to March 15, 1920. Applications should be in letter form, addressed directly to the Surgeon General, United States Army, Washington, D. C., and should have embodied therein the following data in the order indicated:

(1) Name in full (initials not acceptable). (2) Date of birth. (3) Place of birth. (4) Permanent home address. (5) Medical school or schools from which graduated, with dates. (6) Professional experience. (7) If an officer who has served during the emergency, complete statement of military service, setting forth (a) the organizations in which served and inclusive dates, (b) present organization, if still in the service, (c) grade in which originally appointed, (d) present grade if still in the service, (e) date, place of discharge, and rank at time of discharge if no longer in the service. (8) Statement of any service as a contract surgeon, in the Medical Reserve Corps, in the Medical Section, Officers' Reserve Corps, or in the Medical Service in Volunteers. (9) In cases of alien birth, (a) documentary evidence of naturalization, (b) if naturalized through parent, documentary evidence of father's naturalization and sworn statements from two reputable United States citizens establishing relationship between candidate and his father.

At the present time there are, approximately, seven hundred and thirty vacancies in the Medical Corps.

HARVARD TO AWARD MEDAL OFFERED FOR HEALTH CONSERVATION

A bas-relief bronze medal, the gift of M. Douglas Flattery to Harvard University, has just been received by the university authorities and will be awarded later, in accordance with the terms of the gift, "to the person

The Maurice Douglas Flattery Medal (Photograph by Bachrach)

the President and Fellows of Harvard College may adjudge to have made a discovery in any branch of science that would result in the greatest good to humanity in the prevention of disease or conservation of health in the broadest sense."

The medal, by Frye, is a work of art, as extraordinary as it is beautiful. The face bears the words, "The Maurice Douglas Flattery Medal for the Aid of Science and Health," and the figure of the Muse removing the veil from the Tree of Knowledge. At the right of the figure are the words, "Awarded to——"

On the reverse side is the Tree of Knowledge, while on panels are carried the names of Hippocrates, Aesculapius, Laennic, Harvey, and Pasteur. The gift, but one of a series from Mr. Flattery, was made in 1918, and consists of securities valued at $7,500, the income from which is to be utilized in providing a medal and $500 in cash, to be awarded annually by Harvard University to the fortunate discoverer of the greatest benefit to the health of humanity.

TEN CENTS WORTH OF CURE

A very much overdressed woman came into a dispensary one afternoon. "What is the matter with you?" she was asked. After looking all around the room in a rude manner she replied, "Fot ish de matter vid me? Vel, thot ish fer you and the doctor to find out. Sure I did not pay mine ten cents to tell you where I vas sick, and if you can't find out, then gife me back mine ten cents."

REPORTS PLANS FOR COMING YEAR

Special efforts will be made to search out unsuspected cases of tuberculosis in the educational campaign to be waged by the National Tuberculosis Association this year. It is proposed to reach every part of the country and impress on the people the fact that tuberculosis is preventable and curable. More than six and a half million dollars will be spent in an effort to prevent the annual sacrifice of thousands of lives.

American Hospital Association
Official Bulletin

Issued by the Executive Secretary
ANDREW R. WARNER, M. D., Executive Secretary
407 Lennox Building, Cleveland, Ohio

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1920 CONVENTION

October 4 to 10, inclusive, at the Hotel Windsor, Montreal, Quebec.

1920 COMMITTEE APPOINTMENTS

Officers of Sections

ADMINISTRATION

Dr. R. B. Seem, chairman, assistant superintendent, Johns Hopkins Hospital, Baltimore, Md.
Dr. A. C. Bachmeyer, secretary, superintendent, Cincinnati General Hospital, Cincinnati, Ohio.

OUT-PATIENT

Mr. John E. Ransom, chairman, Michael Reese Dispensary, Chicago, Ill.
Mr. Clarence Ford, secretary, superintendent, Division of Medical Charities, State Board of Charities, Albany, N. Y.

SOCIAL SERVICE

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Miss Alice Rushbrooke, secretary, director of Social Service, Royal Victoria Hospital, Montreal, Quebec.

HOSPITAL CONSTRUCTION

Dr. George O'Hanlon, chairman, Bellevue Hospital, New York City.
Mr. Oliver H. Bartine, secretary, Flower Hospital, New York City.

NURSING

Miss Elizabeth A. Greener, chairman, superintendent of nurses, Mount Sinai Hospital, New York City.

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TIME AND PLACE

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Dr. Harold C. Goodwin, superintendent, Albany Hospital, Albany, New York.
Dr. A. R. Warner, Executive Secretary.

OUT-PATIENT

John E. Ransom, chairman, Michael Reese Dispensary, 1102 Maxwell Street, Chicago, Ill.
Dr. D. B. Armstrong, Community Health and Tuberculosis Demonstration, Framingham, Mass.
Dr. Robert J. Wilson, Health Department Hospital, New York City.

NURSING AND THE HOSPITAL

Conducted by CAROLYN E. GRAY, R.N.,
Secretary, New York State Board of Nurse Examiners,
132 E. 45th Street, New York City

HOW THE PUBLIC IS FOOLED

The following study of commercial registries for nurses was made by a member of one of the women's clubs of New York City, as a contribution from the club to the legislative campaign of the New York State Nurses' Association. The study was made between January 12 and January 20, so that it represents conditions antedating the epidemic of influenza.

The usual fee was 10 per cent of the nurses' earnings for a period of ten weeks, amounting to one week's pay out of every ten weeks' work. It is not difficult to see that this puts a premium on securing as high a rate of pay as possible for each worker sent out.

It is to be noted that the registries committed no illegal act. In every instance they were strictly "within the law." It is because the laws are so inadequate that the nurses of New York state are introducing a bill to amend the present Nurse Practice Act. The conditions revealed suggest one reason why there is a shortage of applicants for admission to reputable nursing schools. It is highly probable that similar conditions exist in many other cities of the United States.

* * * *

I approached six of the eight chief agencies in the city as a person who had recently returned from the South, where I had seen sickness in army camps. I said that I had had a few months' training in a hospital some fifteen years ago and understood that nurses were well paid in this city, and asked what would be necessary to do in order to be registered by them.

An elderly man was in charge at the first agency, his office being a small, untidy room in what seemed to be a lodging house. He had no application blanks, but said he would like credentials, if convenient. He asked me if I felt competent to do all sorts of nursing, and promised work at once, probably at $5 per day. Before he asked any questions he drew his book toward him and dipped his pen in the ink. I gave him a name, stating that I had no telephone number at present, but would communicate it when I had one. Five days later I called up to say that I had a telephone number. A woman's voice interrupted me, saying, "Listen, can't you take a case right now?"

I said, "What is it?"

"A pneumonia case on Riverside Drive."

I replied, "I am not ready to go out today."

"Well," she said, "can't you help us out now? Wouldn't you go out tomorrow morning on some other case? We are awfully busy."

No reference of any sort was given at this registry.

* * * *

At the next registry a shabby and disagreeable woman was at the desk, which was flanked by a pile of clothing on the floor.

A nurse was complaining loudly about being sent to a case with no money in it.

The woman said to her, "I suppose it was Brown's or Smith's that sent you out on that.[1] That's the kind of thing they do, but I wouldn't."

I asked if I could get $5 a day on her registry.

"I'm afraid you have exaggerated ideas about New York," came the answer. "You may get $3 or $4 a day, but the doctors are asking us right along not to give more than $35 a week for graduates."

"You can get a pretty good price, can't you, for undergraduates?" I inquired.

To this she replied, "We can only do what Albany lets us do; it keeps close watch, I tell you."

She said they were very busy and could give me work at once, but did not ask me to register. I left no name. When I called up a few days later, the voice stated that it was not necessary to see me for a personal registration if I would fill out their application blank and send it in by the next mail. I gave them the telephone number of a friend but did not send the blank. Nevertheless, this registry telephoned a few hours later, asking me to take a neurotic case on West Sixtieth Street and Fifth Avenue. The woman asked my friend one question only, "Is she very young or very old?"

* * * *

The next agency was in a private house, and the new clerk could not tell me what credentials were required. They were unable to meet their calls and could practically guarantee work. They had no application blanks. I called up several days later to say I was prepared to register.

The voice said, "Are you ready to go out today? We haven't a single nurse on call now; it is simply terrible."

"What is necessary first?" I asked.

"It is only necessary to know the name of your hospital," she answered, "and to have a reference from one doctor."

She was not willing, however, to send me out until she had seen me.

* * * *

Brown's agency is a large one, with a reputation for general laxity, where it is said that pupil nurses who have been discharged from training schools have no difficulty in placing themselves at graduates' pay. It is a businesslike place with several men and women clerks.

A man clerk took a registry blank at once as I approached, and said, "Name?" I replied that I would like

1. The names given are fictitious.

some information before agreeing to take cases, and asked how long I must wait for one.

"You can go out at once, as we are very busy and have very few nurses free," I was told. "You would get $5 a day. Can you give a hypodermic? If you can, you're all right."

"Do you require credentials before sending me?" I asked.

"We take the name of your hospital and get all we need from it."

He pressed more insistently for registration than any one else had done, but did not mention securing the reference called for on the blank which he pushed toward me for signature.

I hesitated, saying that I had not read the conditions on the back before signing, but he insisted, saying, "It is a matter of form only."

I gave him misleading and incorrect information about hospital training.

Two days later he telephoned me and said, "Are you ready to go on a case?"

"What is it?"

After a long delay he replied that he did not know. I think it extremely unlikely that he had any information about me whatever.

The next registry has a building of its own, with well dressed and businesslike women clerks, a surgical dressings department, a diet kitchen—all apparently in a prosperous condition.

The young woman who received me showed the same eagerness to have me register that the other registries showed. She said, "We are so busy that you may go out in twenty-four hours. We require one reference now, and after you have had your first case, four others. You can get $5 a day. We arrange your fees. You must agree to come to us for your cases, and to take none directly from doctors. We advise you not to register elsewhere."

I asked how I could go out within twenty-four hours if I failed to get one reference in their hands within that time.

"Give us some one with whom we can get in touch by telephone now. It is not necessary to know so much about your work as it is to know you."

"I took care of some influenza patients in a Southern hospital," I told her.

"You are up on hospitals, then, and understand hypodermics?"

"Could you give me pneumonia cases," I asked.

"Yes. You feel able to take them, don't you? The hard cases are paid well."

She advised me not to register until ready to go out on a few hours' call.

* * * *

The last registry visited conducts a school for nursing. There are two rooms there—a lecture room and what seemed to be a physician's office, poorly equipped with odds and ends of furniture. The school has two terms a year of five months each and two hours of lecture work twice a week. The course consists of forty-four lectures and costs $60 if paid in installments, or $55 cash down. A student may enter at any time. There is one textbook of the president's lectures. In return for this a nurse is given all the work she can do, a "nice" pin, and a diploma suitable for framing.

About thirty students register each term. There is no age limit, and there are no educational requirements. The same conditions apply to the students and graduates of the correspondence course.

The president, who gives the lectures, is a pleasant man, who believes in himself, his theories, and his nurses. He speaks of his school with enthusiasm. His registry for graduates has practically nothing to do, because his highly successful and popular nurses establish their own business connections through patients and doctors. He requires no fees and he sends his undergraduates to chronic and simple cases of illness. In this way they earn about $20 a week, paying for their education almost from the time of their entry, in case it is necessary. He told me that he placed one girl on the second day of her course. The patients understand, of course, that the student is to have time off to attend lectures.

The education he offers is all theoretical, like a doctor's, and a nurse he trains knows as well how to take care of a patient after classroom demonstration as she would after three years in a hospital. Once he sent a nurse, after his lecture on obstetrics, to a case, in spite of her fear that she would make mistakes. She went, the patient had twins, the doctor was delighted, and engaged her for his own wife's confinement two months later. Many of the well known physicians in the city prefer his nurses because they are more amenable and adaptable than hospital graduate nurses. One of his graduates who had been a waitress before taking his course, writes:

"I want to thank you for urging me to become one of your students. Although speaking English very poorly, I have thought what your school has done for me; been employed during the past year by one of the best registries, hardly having one full day to myself, and my salary has always been $28 to $35 per week. In no other way could I ever have accomplished this."

Another one says:

"What do you think! I was called on a pneumonia case. I was so frightened, and I explained over the telephone that I was not competent enough to venture on such a case. But I made an attempt in order to prove to myself how much or how little I knew. On my arrival I encountered three hospital graduates, and of course they looked upon me as another. Two nurses for the day and two for the night, for it was a very serious case, so you see what knowledge I must have gathered from your lectures on pneumonia in that short time to have escaped detection from those trained nurses during the two weeks of my association with them. I also stepped from $15 to $25 a week."

UNIVERSITY OF COLORADO GIRLS' COURSE IN PUBLIC HEALTH NURSING

A four months' course in public health nursing will be given from March 1 to June 31, 1920, under the joint auspices of the University of Colorado, Extension Division, and the Colorado Fuel and Iron Company, at the Minnequa Steel Works and Hospital, with field work in Pueblo and mining camps. The course will consist of lectures and class recitations, together with field work. The course is accredited by the National Organization for Public Health Nursing and the American Red Cross. Although a limited number of senior pupils from accredited schools of nursing will be accepted, applicants, generally speaking, should be graduate nurses of accredited schools of nursing. For information regarding this course, communications should be addressed to Miss Mary B. Eyre, director, Minnequa Hospital, Pueblo, Colo.

During the war the American Red Cross furnished 294,000 splints for American soldiers. It also supplied 4,340,000 gallons of nitrous oxide and oxygen to French hospitals.

DISPENSARIES AND OUT-PATIENT DEPARTMENTS

Conducted by MICHAEL M. DAVIS, JR.
Director, Boston Dispensary, 25 Bennet St., Boston

ORGANIZATION, ADMINISTRATION AND EQUIPMENT OF DISPENSARIES*

A Report Made by the Public Health Committee of the New York Academy of Medicine.

Part II

(1) *Dispensary Hours.*—Although it is generally conceded that dispensary hours should be adjusted as far as possible to meet the requirements of wage earners, school children, and housewives, it has been found to be practically impossible to meet the convenience of all concerned, including the physicians. The doctor in private practice finds it possible to give his time to dispensary work during the day, but is reluctant to give up his late afternoon or evening office hours. On the other hand, for the patient employed in gainful occupation, or the child attending school, it is difficult to attend clinics at the hours at which they are usually open.

OUTLINE OF ORGANIZATION, ADMINISTRATION, AND EQUIPMENT OF DISPENSARIES

(1) *Dispensary hours.*
(2) *Prevention of over-crowding and long waiting periods.*
(3) *Exclusion of contagious disease cases.*
(4) *Surgical operations and facilities for the care of patients.*

In view of the fact that unpaid medical service is the rule, rather than the exception, it has been necessary for the dispensaries to adjust their hours, as far as possible, to meet the convenience of the physicians, rather than the patients. Of all the dispensaries in the city, only thirteen have late afternoon clinics. Among these are such special institutions as the Clinic for Speech Defects and the Clinic for Functional Rehabilitation. In the other institutions, only certain departments have clinic hours until five p. m. In addition to the tuberculosis clinics, there are in all not more than ten institutions maintaining evening clinics. Three general dispensaries conduct evening cardiac clinics; two, evening genito-urinary clinics; two, a mental hygiene clinic; one, a clinic for diseases of women, and one a chiropody clinic. The Clinic for Speech Defects is also open in the evenings.

The hours for day clinics vary widely, all hours of the day from nine in the morning to four in the afternoon being used. Morning hours from ten to twelve, and afternoon hours from two to four, are the most frequent. Physicians in private practice ordinarily find it most convenient to have office hours in the morning before ten o'clock, from twelve until two in the afternoon, and from six until eight in the evening. Dispensary hours have therefore been adjusted largely to meet these conditions.

The experience with evening clinics has not been sufficient to enable one to form a fair judgment as to the demand for them. In the house-to-house canvass made in several sections of the city, and among various racial groups, by the agents of the Public Health Committee, the great majority of people expressed themselves in favor of evening clinics. The evening pay clinic, as well as the evening free clinic, of the Brooklyn Hospital Dispensary, has been well patronized and successful in every way. Evening clinics for the treatment of genito-urinary diseases and diseases of women have been very successfully conducted at the Demilt Dispensary, and have grown steadily in patronage. The evening cardiac clinic at Bellevue Hospital has also proved successful; so have the evening mental hygiene clinic at Cornell and the evening class at the Clinic for Speech Defects. The evening clinics for tuberculosis and cardiac cases at Gouverneur Hospital Dispensary were discontinued after a short trial, because of the lack of available physicians for evening work, although the evening tuberculosis clinics elsewhere have been entirely successful.

The dispensary superintendents interviewed in connection with study were, with few exceptions, in favor of evening clinics. Without any more definite program for compensating physicians, however, than is now in operation, it would be extremely difficult to induce a body of competent physicians to give time in the evening. If adequate salaries were paid, or if a definite program of promotion were provided, either with or without compensation, the service would no doubt be sufficiently attractive to physicians.

The operation of evening clinics presents no serious difficulties beyond securing adequate medical service and meeting the additional cost which would be entailed. It would be necessary, therefore, to require somewhat larger fees for evening service, or even to make some of them self-supporting "pay" clinics.

(2) *Prevention of Over-Crowding and Long Waiting Periods.*—Lack of adequate clinic space, insufficient personnel of physicians, nurses, and clerical assistants, tardiness of physicians, lack of system in examining patients, and inadequate equipment for such examinations, cause frequent delays in getting work done in the clinic rooms, and these delays are reflected in the clinic waiting room, in the general waiting room, and at the admission desk. Sometimes the admission desk is responsible for the delay, as at one of the special institutions where the admission

*Part II of the first chapter of the report made by the Public Health Committee of the New York Academy of Medicine on the Dispensaries of New York.

room is so small that patients have to stand in a line which at times extends out upon the sidewalk for a considerable distance, while the registrar interviews each patient at some length. In the majority of instances, the causes of delay are chiefly in the clinics themselves. In many dispensaries delays are frequent and unusually long because of the failure of physicians to come promptly at the hours; at the Lincoln Hospital, the New York Hospital, Bellevue, and the Harlem Hospital, delays are frequent and long because of the lack of space in the clinic rooms. In some instances waiting periods are unnecessarily frequent and long because the physicians have not assistants to prepare patients for examination and to take histories. Several years ago the waiting period was reduced at Mount Sinai by the adoption of the principle of limitation of numbers. The maximum number of cases which could be handled in each department was ascertained, based on the average length of time customarily allowed for new and old cases, and the number of physicians on duty in the given department. When this maximum number is reached, further applicants are refused admission on that day. It has reduced over-crowding to a very large extent, but involves a considerable degree of inconvenience and uncertainty to the patients.

Appointment System Not Practised

Nowhere is the system of "appointment" practised, first, because it necessitates the employment of a clerical staff to make the appointments with the patients; and second, because it is stated that it would be difficult for a large number of the dispensary clients to keep the appointments. The first reason seems to constitute the great difficulty in the attempted solution of one of the most vexing problems of dispensary administration, by this method. With the meager sums at the disposal of the out-patient departments, the payment of salaries to the necessary clerks would be a serious financial burden. With regard to the second reason, under a proper working plan the failure of some of the patients to keep appointments would not be a cause of disorganization. The presence of the clinic secretaries at different hours at the dispensaries would make it possible for the patients to arrange for consultations at times convenient to them, and would be conducive to a smooth operation of the clinics, provided the physicians were punctual in their attendance. The method received a trial in the children's clinic organized by the American Red Cross at La Havre, under the direction of Dr. Edwards A. Park of Johns Hopkins Medical School. The following is an extract from Dr. Park's description of the plan, as published in the August, 1919, issue of THE MODERN HOSPITAL:

Red Cross Plan in France

"Children brought to the dispensary during its period of regular session were either seen by the doctor at once, or given definite appointments for the same day or for some subsequent day; in other words, patients applying for treatment were received exactly as they would have been by a busy private physician. The assignment of hours for the appointments was in charge of one person, the dispensary clerk, who kept the daily register and acted in the capacity of a secretary in the office practice of a private physician. Her desk was so placed that patients entering the dispensary naturally passed before it. On her desk lay the calendar containing the list of appointments for the day and for succeeding days.

"The appointment system, as employed in our dispensary, was carried out in the following manner: a child applying to the admitting clerk for examination was given an appointment immediately, if one of the ensuing periods on a doctor's schedule was free. If such a period was not free, the action of the dispensary clerk was governed by the urgency of the case. If immediate examination was necessary because of the illness of the child, or the inability of the parents to wait or to return, or for some other reason, the child was registered immediately, and then sandwiched in between two cases having regular appointments. If the case was not urgent, the appointment lists were consulted to determine the free periods, and the parents allowed to select the one most convenient. A doctor was always at the disposal of the dispensary clerk to determine the urgency of the case from the medical standpoint.

Doctor Makes Reappointment Date

"After the consultation, the date for reappointment was, of course, always made by the doctor, who alone was conversant with the patient's needs, and was communicated by him in writing to the clerk, at the bottom of the treatment slip. Only the date for reappointment, however, was arranged by the doctor. The hour was always determined by the dispensary clerk after consultation with the patient and examination of the appointment lists.

"When the dispensary clerk had fixed upon the appointment hour most suitable to the patient, whether the patient was a new case or an old one, she entered it, with the date, on the reverse side of the dispensary card which the patient was to take away with him, and then wrote the patient's name and number under the corresponding date on the appointment calendar.

"Appointments were made to fall due on the hour and the half hour. If the case was a new one, a half hour was regularly allotted to it, and ordinarily no other assignment was made for that half hour on the doctor's schedule. If, however, the child had been seen previously, particularly if it was thought that little time would be required for examination and treatment (e. g., feeding cases returning frequently), other old cases were assigned to the same half-hour period. Ordinarily, no appointments were made on the doctor's schedule between eleven a. m. and one p. m., or between four p. m. and five p. m., in order that there might be some time free for emergency cases. Thus it was possible to examine the great majority of new patients on the day of application.

Advantages of Appointment System

"The advantages of the appointment system are so obvious as to require little comment. Perhaps the most important result from it in our dispensary was the saving of the patient's time and, therefore, of his money. The day's wage is of as much importance to the dispensary patient as the day's income to the dispensary doctor; its steady flow is often a matter of vital importance. Yet the dispensary system generally in use, according to which the patients are obliged to assemble before nine a. m. or two p. m., and then to wait often the whole morning or afternoon, implies that the time of the dispensary patient is of so little value that it may be almost disregarded. The truth is that the modern dispensary is conducted, primarily, with a view to the convenience of the dispensary physician, on the principle that it is better for forty patients seated on the benches to lose sixty hours' time, than for the doctors to be subjected to the possi-

bility of losing one-half hour's time. As everyone who has worked in children's dispensaries knows, many a parent who finds himself obliged to sacrifice his day's wage, or, if he works at night, his day's sleep, will not bring his child to the dispensary. Yet such a parent will bring his child to meet the doctor on a day and hour found to be mutually convenient.

"In fact, as applied to the dispensary, the appointment system not only causes no loss of time to the doctor, but brings about the very best utilization of his time by producing a more even distribution of patients throughout the dispensary day and week. The avalanches of patients which descend on Mondays, on the days following holidays, or the first pleasant day after a period of bad weather, can, to a great extent, be anticipated, or held and distributed. The doctor thus avoids the frequent necessity of abandoning all careful consideration of his cases in an effort to get rid of them as rapidly as possible. Furthermore, the assembling of crowds of children is obviated, exposure to contagious diseases minimized, and noise and confusion, the two attributes of children's dispensaries, greatly reduced.

Unpunctuality Caused Crowding

"From what has been said, it must not be thought that the appointment system always worked perfectly in our dispensary and at once freed us from all the ills of the old system. Waiting and crowding occurred, but, relatively speaking, to a limited extent. Sometimes when groups of patients collected, the fault was with the patients who had come late; almost always, however, it lay with the doctors who were late themselves, or fell behind their schedule as a result of some emergency or for some other reason. When the system worked perfectly there were not more than six patients in the waiting room at any one time during the day. On several occasions visitors have remarked, 'You have closed?' when, in reality, more than fifty patients were being seen in the course of the day.

"If the dispensary patient paid a fee to the dispensary doctor, in other words, if the dispensary doctor had been compelled by his own selfish interests to recognize the convenience and economic necessities of his patients, all dispensaries would have been operated on the appointment plan long ago. There is no reason why a dispensary created for the benefit of the poor should not be conducted from every point of view to their advantage."

Occupation for Waiting Patients

With one exception, in none of the dispensaries studied was there observed an effort to utilize the waiting time of patients or to occupy them while they wait. The extent to which the waiting time of patients can be used for their instruction or employment is problematical. Certainly there is warrant for believing that if long waits cannot be avoided, some way can be found for occupying the time so spent. Instruction of patients in the rules and regulations of the dispensary would perhaps promote more efficient coöperation between the physician and the patient. Each new patient might be given a leaflet of simple instructions regarding such matters as promptness in attendance, attitude toward other patients and toward physicians and nurses, deportment in the dispensary, care and use of dispensary property and conveniences, and necessity of following orders of physicians and nurses.

The possibility of giving special talks to large groups in the general waiting rooms is worthy of trial, although the difficulties of such a procedure are obvious. The group is changing constantly, and the talks would have to be brief and of such a nature that they would not interfere with the regular dispensary routine.

Health exhibits on the walls of the waiting rooms, with pictures or charts large enough to be seen from the patients' benches, would be of value, but it would, of course, interfere with the orderly conduct of patients to install exhibits which require close inspection and necessitate having the patients leave their seats. Posters of various kinds, such as have been used in the several war "drives" or loan campaigns, have proved their value. An exhibit of wax models of food, with their relative nutritional values and costs plainly shown upon cards, was noted in the children's clinics at the Post-Graduate, Bellevue, and Polhemus Clinics, and considerable interest is shown in the exhibits.

At the New York Hospital, where the patients are often required to wait for inordinately long periods, an attempt was made to employ them in making dispensary supplies. This was not successful, however, and the patients are now advised to bring something to read or knit. In certain other dispensaries, with perhaps a more adaptable clientele, such an experiment might be successful, but there is little experience on which to base judgment on this point.

Contagious Disease Suspects Isolated

(3) *Exclusion of Contagious Disease Cases.*—The institutions included in this study all provided for the isolation of suspected cases of contagious disease, although many of the dispensaries had no special isolation room. In these instances a vacant clinic room or other room was utilized for the isolation of the suspects. At no dispensary, however, is there a satisfactory method of detecting suspected cases before admission, except in the two institutions where the chief physician is regularly on duty at the admission office. If the signs of contagious disease are sufficiently obvious, the experienced registrar may detect them, but in many instances contagious disease is in its incipient stage, and is not detected until the patient reaches the clinic room. At Mt. Sinai this work is being done by a trained nurse specially assigned to this task and the arrangement is reported to be satisfactory.

Complete enough records are not available in the various dispensaries to permit a determination of the frequency of admission of cases of contagious disease. The consensus of opinion of dispensary administrators is that few cases of contagious disease escape detection at the admission desk, but our observation does not substantiate this belief. It would, however, be highly desirable to have complete records kept on all cases, as the possibility of contagion being spread in the crowded waiting halls or clinic rooms of dispensaries is not altogether remote. Such records would be helpful in determining whether or not greater diagnostic skill at the admission desk is warranted.

Over-Night Care of Patients

(4) *Surgical operations and Facilities for the Care of Patients.*—The dispensaries which are connected with hospitals arrange for the care of minor operative cases requiring general anesthesia and observation during recovery, by referring the patient for admission to the indoor service. Vanderbilt University, Bellevue, and St. Bartholomew's clinics are the only three dispensaries having no hospital affiliation which have facilities for the overnight care of patients. Cornell Dispensary patients re-

quiring general anesthesia and bed care after operation are referred to the Cornell Division of the Bellevue and Allied Hospitals, at the discretion of the surgeon. The Demilt Dispensary, the New York Dispensary, and the Brooklyn City Dispensary do no operative work if, in the opinion of the surgeon, observation of longer duration than the clinic period is required.

Although there is evidence in the available records of the dispensaries studied to warrant the assumption that patients operated upon in the clinics do not receive proper after-care, there is a lack of uniformity of procedure because the determination of what should or should not be undertaken in the dispensary is left largely to the discretion of the surgeon to whom the case happens to come. There are no general rules in dispensaries with regard to procedure. The recommendations of the Surgical Section of the Associated Out-Patient Clinics, formulated several years ago, constitute the only available attempt at standardization and general guidance and are herewith reproduced:

"The decision as to whether an operative case is an out-patient or an in-patient should be rendered by the chief of clinic.

"*(a) Anesthesia.*—(1) In all cases where possible, local anesthesia should be used.

"(2) All cases for anesthesia should first be referred to the surgeon in charge for his examination, or in his absence, to the first assistant. In all cases in which general anesthesia is used, a suitable recovery room must be provided and the patient must have the services of a nurse until out of the influence of the anesthesia.

"*(b) Fractures.*—(1) Ambulatory fractures may be treated in the out-patient department, provided open operation is not necessary.

"(2) The services of a radiographic department to furnish sufficient skiagraphs for the treatment of fractures should be afforded to the out-patient clinic. This department should, if possible, be in close proximity to the out-patient department, in order that fluoroscopic examination may be made, if deemed necessary.

"(3) There should be available materials for splinting fractures, and in addition, the services of a competent brace-maker should be secured in cases for which such services may be necessary.

"(4) There should be, either in conjunction with the out-patient department or connected with the hospital, and open to patients from the out-patient department, a department of massage, mechano-therapy, hydrotherapy, and hot-air treatment for the treatment of convalescent cases.

"*(c) Operative Cases.*—(1) The permission of the surgeon in charge, or, in his absence, that of the surgeon designated by him, must be obtained in every operative case.

"(2) Lumbar puncture for diagnosis and the injection of salvarsan should be performed only in clinics in which facilities are provided for keeping patients in bed for at least twenty-four hours.

"(3) In those clinics in which the Laryngological Department is under the control of the Surgical Department, cases of tonsils and adenoids shall not be operated upon except under general anesthesia, and unless facilities are provided for keeping patients under observation in bed for at least twenty-four hours.

"(4) Cases that have been operated upon should be visited when necessary by the visiting nurse, and her records and report attached at once to the history of the patient. An immediate report should be made by the visiting nurse to the operator personally, or by telephone, should the nurse, in her judgment, consider it necessary that the patient should be visited by a doctor from the out-patient department, or admitted to the hospital."

AMERICAN CONFERENCE ON HOSPITAL SERVICE MEETS IN MARCH

The next meeting of the American Conference on Hospital Service will be held at the Congress Hotel, in Chicago, Wednesday and Thursday, March 3 and 4, following the meeting of the Council of Medical Education.

It is hoped that by this time committees will be sufficiently organized to submit policies for discussion and permit the formulation of a definite program of work.

SCHOOL CHILDREN AID IN WAR

Through the Junior Red Cross, the school children of America during the war produced 15,722,078 relief articles to an aggregate value of $10,152,461. The following table shows in figures the quantity and money value:

	Quantity	Value
Surgical dressings	6,057,720	$ 363,463
Hospital supplies	2,574,564	772,369
Hospital garments	444,776	578,208
Refugee garments	1,130,188	1,808,300
Articles for soldiers and sailors	3,174,999	5,238,748
Sewing for convalescent and nurses' houses	138,345	69,172
Sewing for camps	1,444,507	722,253
Furniture for convalescent and nurses' houses	70,084	404,384
Furniture for army	666,445	193,341
Miscellaneous furniture	20,450	2,219
	15,722,078	$10,152,461

The United States Steamship "Relief," now in course of construction at the Navy Yard at Philadelphia, Pa., was launched December 23, and will be completed some time the latter part of the summer. The ship is of the twin screw type displacing about 10,000 tons, is approximately 483 feet long, with an extreme breadth of sixty-one feet and a speed of sixteen knots. The hospital compartments will accommodate about 500 patients, being of a size comparable to the largest metropolitan hospitals, with roomy clear deck spaces for convalescents. It will be an oil burner free from the dust and other disagreeable features of coal burning vessels. In addition to the ordinary hospital equipment, it will carry in the hold a complete field hospital equipment, including ambulances so that necessary advanced base hospital equipment can be landed on short notice in case of a national calamity such as Baltimore fire, the San Francisco earthquake, or the Galveston tidal wave.

He had just hung out his shingle. That morning a stranger entered. The doctor asked to be excused as he hurried to the phone.

Taking down the receiver. He said: "Yes, this is Dr. Whoosit. Yes, I will be ready for you at two-ten this afternoon. But please be prompt for I am very busy. Two hundred dollars? Yes, that was the estimate I gave you."

Hanging up the receiver, he turned to the stranger and, rubbing his hands, asked: "Now, sir, what can I do for you?"

"Nothing," replied the stranger quietly. "I only came in to connect up the telephone."—*Oral Hygiene.*

DIETETICS AND INSTITUTIONAL FOOD SERVICE

Conducted by LULU GRAVES,
Home Economics Bldg., Cornell University, Ithaca, N. Y.

COMMERCIAL SYRUPS

By JOHN PHILLIPS STREET, Indianapolis, Ind.

Cane Syrup, Maple Syrup, Corn Syrup, Maltose Syrup, Sorghum Syrup.

The present sugar shortage and the attendant high prices of this valuable sweetening agent threaten serious consequences as affecting the health and proper nutrition of our people. To the normal human being sugar of some sort in the diet is a virtual necessity. While excessive use may cause digestive disturbances, and while under certain pathological conditions its use is contraindicated, the fact remains that when sugar is excluded from or unduly limited in our diet we feel the limitation keenly and our perfectly normal longing for sweetness in our foods is unsatisfied.

In this connection a word of warning should be uttered against the use of saccharin, now widely advertised as a substitute for sugar and acclaimed as a solution of the problems arising from the present sugar stringency. It cannot be denied that saccharin has sweetness, in fact it is from four to five hundred times sweeter than cane sugar; but this sweetness is its only quality which would entitle it to any consideration as an ingredient of our foods. Saccharin is a food in no sense; it is a coal-tar product upon which the metabolic processes of the body have no effect. It passes through the body unchanged, contributes not one calorie to the body's fuel and energy requirements, and has not the power to construct even one microscopic cell of body tissue. Its use simply satisfies the human craving for sweetness, and in this property lies one of its main dangers. The value of sugar lies not alone in its sweetness, but also in that it supplies an easily digested, assimilable, nutritious element to our diet, and to supplant this with saccharin is to confound sweetness with nourishing properties; and to substitute an inert coal-tar product for one of the most valuable foods God has given us. The Federal Government has ruled that saccharin is detrimental to the health of the user when used even in relatively small quantities and forbids its use in foods except in a limited number of products prepared for the use of diabetics and those suffering from obesity and kindred diseases. In the judgment of the writer, however, the chief objections to the use of saccharin in food are the commercial deceit that follows, the reduction in the nourishing value of the foods which contain it, and the unfair competition to which the honest purveyor of wholesome and nutritious foods is subjected. Saccharin has no place in the dietary of a well human being, and even when sick of a disease where sugar in the diet is objectionable, even then the patient should use saccharin sparingly and only under competent medical direction.

But to revert to real sweetness. It is unnecessary and undesirable at this time to discuss the chemistry of the various sugars. The best known sugar, of course, is cane sugar, sucrose, which is obtained commercially from the juices of the sugar cane, sugar beet, and the sugar maple. Dextrose is another well-known sugar, which comes to us commercially as an ingredient of corn syrup (glucose syrup). It is also found in certain dried and ripe fruits and in honey. Maltose is a sugar developed in the malting of various grains, while levulose is a sugar found in many fruits and is an important constituent of bee's honey. Milk sugar (lactose) is found in milk to the extent of 4 or 5 per cent.

Cane sugar exists as such in the cane and beet, and the manufacturing process is chiefly concerned with its clarification and the removal of impurities. Cane sugar is also present in maple sap, but in the preparation of maple sap and maple sugar certain "impurities" are purposely allowed to remain to secure the peculiar flavor because of which these products are so highly esteemed. Likewise the levulose in fruits and honey exists there as a true sugar. On the other hand, commercial glucose and maltose are not natural sugars, in that they do not exist preformed in the grains from which they are obtained; they are obtained by the action of dilute acids or diastase upon starches, the starch molecule being broken up and dextrose or maltose resulting.

Generally speaking, from the standpoint of nutriment there is little choice among the sugars named above. They are all nutritious, easily digested, easily assimilated, and all yield essentially the same amount of energy to the body. Milk sugar is perhaps the most easily digested and is, therefore, particularly valuable in the diet of children.

If sweetness alone is sought after, it will be found that these sugars show important differences. Assuming the sweetness of cane sugar (sucrose) to be 100, that of levulose would be 150, maltose 60, glucose (dextrose) 50, and 40 per cent glucose (corn) syrup 20. Levulose as such scarcely comes into commercial use and may be dismissed from our consideration at this time. Of the common sugars, sucrose, dextrose, and maltose, sucrose is by far the sweetest. Naturally, therefore, a smaller quantity is needed to secure any desired degree of sweetness. Twice as much dextrose would be needed to equal the sweetness of any given amount of sucrose, but it must be recognized that the use of this quantity also practically doubles the nourishing value of the product to which it is added.

Syrups are essentially solutions of one or more sugars in water. Sugar is their costly ingredient and it is fitting, therefore, that a minimum density should be insisted upon in the commercial products sold to the public. A minimum of from 65 to 68 per cent of solids is the usually accepted standard of density for these products. The

syrup solution cannot be too concentrated or the sugar will not keep in solution and an unsatisfactory product will result.

Cane syrup is made from the juice of the sugar cane. This syrup is clarified and purified and, correctly or not, the public has grown accustomed to judge a syrup largely by its color. In cooking, a darker product is often preferred, but for table use a light-colored, golden-yellow syrup finds most ready favor. It must be remembered, however, that a brown color to the syrup does not necessarily indicate poor quality. A home-made cane syrup may be made by simply dissolving either white or brown sugar in boiling water. A little burnt sugar (caramel) improves the color and flavor of such a syrup.

Molasses is really a form of cane syrup, of much darker color and generally of heavier consistency. It is less highly refined than cane syrup, and its characteristic flavor gives it special value for many cooking purposes. Molasses from the sugar beet is rarely used for table purposes, as it contains impurities which give it an objectionable flavor.

Syrup Made from Sorghum Plant

Sorghum syrup is made from the juice of the sorghum plant and is a popular food in certain sections of the country. In some districts it is the practice of the farmer to grind his own sorghum and make therefrom his own supply of syrup. Such a syrup as a rule has a distinct flavor, highly esteemed by some, but not always appreciated by the general public. Sorghum syrup is a perfectly wholesome food and with improved manufacturing processes may ultimately fill an important place in our dietary.

Glucose (corn) syrup has long been a fertile source of controversy, chiefly because in its early career it was too commonly used as a substitute for cane sugar in food products without advising the consumer of that fact. At the present time, however, it is sold on its own merits and is a valuable contribution to our food supply. It is a wholesome, digestible product and is particularly acceptable to those to whom the greater sweetness of cane syrup is objectionable.

Maltose syrup as a commercial article is now assuming considerable importance, and doubtless in time will be a formidable competitor of the better known syrups. Such samples as it has been the writer's privilege to taste have shown a peculiar malty flavor quite agreeable to him, but perhaps not acceptable to all palates.

Origin of Maple Flavor

Maple syrup is the most highly esteemed and the highest priced common syrup. As already stated, it derives its peculiar flavor from certain impurities of the maple sap which are allowed to remain. Its sugar is identical with the sucrose of that from the cane or beet root, but in maple sap it is associated with certain non-sugar substances which give maple sugar its peculiar and desirable flavor. Just what these substances are is not clearly known, but probably certain esters of malic and other acids are chiefly responsible. This flavor is sometimes simulated by concoctions from corn cobs or hickory bark, but of course such preparations have none of the delicacy of genuine maple syrup. A mixture of maple and sucrose syrup, or one of maple and corn syrup, is not the genuine article, and when these substances are declared on the label the consumer must not expect to obtain true maple syrup.

All the genuine syrups on the market at the present time are wholesome products, the nourishing value depending chiefly upon their concentration. The delicate flavor of maple syrup will always be esteemed and will command a higher price, but when simple nutriment is desired, cane syrup offers a valuable, much cheaper substitute, and if a lesser degree of sweetness is preferred, corn syrup is cheaper yet and in every way just as wholesome and nutritious.

NEWS NOTES OF DIETITIANS

Miss Eleanor Muth has accepted the position of dietitian in the Robert Packer Hospital, Sayre, Pa. Miss Muth is a graduate of the University of Illinois and has recently finished a course of student dietitian training at New Haven Hospital.

Miss Ruth Oerter, formerly dietitian at the Olney Sanitarium, Olney, Ill., is now dietitian at the Braddock General Hospital, Braddock, Pa.

Miss Laura Conaway, a graduate in home economics from the University of Iowa, who has recently completed a course in hospital dietetics offered at Michael Reese, has just accepted the position of dietitian at the Stuart Circle Hospital, Richmond, Va.

Miss Ruth Gubtil has recently gone to the Grace Hospital, Detroit, Mich., as dietitian. Miss Gubtil was previously at the Harper Hospital, Detroit, in the same relation.

Miss Ruth Pollock is teaching domestic science in the schools of Delaware, Ohio.

We feel sure that the dietitians of the entire country regret that Miss E. M. Geraghty has severed her connection with New Haven Hospital. Miss Geraghty had developed a superior course of training for dietitians, together with an affiliation with Yale Medical School, which made every one pleased with the high standard of work accomplished there. It is to be hoped that this same valuable service may be continued in some other place, and that we shall not lose the inspiration which Miss Geraghty has given to the profession.

An association of dietitians has been formed in Pittsburgh, Pa., with a membership of nearly twenty at the beginning. The officers of the organization are as follows: President, Elizabeth Powers, Allegheny General Hospital; vice-president, Marguerite Bennett, Western Pennsylvania Hospital; secretary, Wanza Zimmerman, Parkview (Government) Hospital; treasurer, Helen Hooker, Presbyterian Hospital. One great evidence we have of the earnest and enthusiastic attitude of dietitians toward their work is this tendency to get together and to use every opportunity to learn what others are doing. We are much impressed with the optimism and perseverance shown in the face of difficulties, and few people in the hospital or elsewhere are facing more or greater obstacles than the dietitian today; she has both of the great bugbears to meet—the high price, and labor problems—and we are constantly hearing hospital executives express their appreciation of the way she is meeting them.

The Home Economics Association of Philadelphia, Pa., held its regular monthly meeting January 15 at the Widener Library. The Dietitians' Section of the Association had charge of the meeting. Many inquiries have come to this Section in regard to the various opportunities, aside from institutional, open to dietitians. The following program was arranged to answer some of the questions: (1) "An Experiment in Settlement Teaching," Miss Alice McCollister, chairman, Dietitians' Section,

State Hospital, Norristown, Pa.; (2) "Acting as Health Advisor for the School Child," Miss Ova C. Pendleton, health advisor, White Williams Foundation; (3) "Factor in Teaching the High School Pupil Home Economics," Miss Ada Z. Fish, director of Art and Home Economics, William Penn High School; (4) "How the Dietitian of School Luncheons May Increase the Pupils' Efficiency," Miss Emma Smedley, director of School Luncheons, Philadelphia, Pa.; (5) "A Nutrition Clinic for Children," Mrs. Gwendolyn S. Hubbard, social service dietitian, Children's Hospital of Philadelphia, Eighteenth and Bainbridge streets; (6) "Diet and Health," Miss Sylvia Bayard, consulting dietitian, Child Federation, Witherspoon Building; (7) "A Visiting Dietitian in a Municipal Court," Miss Mary Loftus, visiting dietitian, Municipal Court; (8) "The Need of the Visiting Dietitian," Miss Frost, instructor, Visiting Nurse Society.

The Dietitians' Section of the Home Economics Association of Philadelphia met at the Pennsylvania Hospital, Eighth and Spruce streets, Philadelphia, Thursday, January 29. A round-table discussion on Social Service Work was held.

The following announcement will be of interest to many, and we are glad to have it at this time, thus enabling any who are interested to make plans for taking this special course. It was offered last year and was so successful that the committee plans to repeat it this year, beginning in June: The 1920 course for practice in homemaking adjustments will be under the direction of the Committee on Home Economics of the Charity Organization Society of the City of New York. Its aim is to bring students, teachers, and other workers in home economics into closer contact with home living conditions and with the methods by which various social agencies are endeavoring to raise home standards and prevent personal and family breakdown. Although the training is planned primarily for women with professional experience in home economics, it is also open to college juniors and seniors who are especially recommended by the head of their home economics departments. The size of the group is limited to thirty-five, and applications for membership must be received by May 1. The course begins Thursday, June 3, and ends Wednesday, June 30. The hours are nine to five. Monday to Friday of each week. One day a week will be used for round table discussions, for special lectures, and for visits to social agencies. Four days a week will be spent in field work carefully arranged to meet the needs of the individual pupil. This year special training can be provided at the Morningside Nutrition and Homemaking Center, which has just been established by the Home Economics Committee. There is also opportunity for nutrition work with hospital clinics and various health and social agencies, and for social case work training with family social work agencies. A fee of $24 is to be charged for the training. This fee is payable in advance to the Charity Organization Society, or to colleges making special arrangements with the Society with reference to payment and credit recognition for the course when taken by their students. According to the arrangements already made with Teachers College, Columbia University, students can secure four points of graduate or undergraduate credit upon the satisfactory completion of the required work. Students desiring such credit will register for the course in advance at Teachers College and pay the $24 fee to Teachers College rather than to the Charity Organization Society. There will be no additional university fee for students who have paid such a fee during the present college year, or who will register at the 1920 Columbia Summer Session. For further information and application blanks, write to: Miss Emma A. Winslow, secretary, Committee on Home Economics, Charity Organization Society, 105 East Twenty-second street, New York City.

SMALL HOSPITAL REMEDY FOR LACK OF COUNTRY DOCTORS

The establishment of small private hospitals in rural communities, in order to insure prompt and efficient medical service to the people scattered through such districts, is advocated by a writer in *The Pennsylvania Medical Journal* as a remedy for the disappearance of the country doctor. Many country physicians have been rendered inactive by advanced years, or broken health, and their places are not being taken by younger men of the profession.

The length of time spent in the medical school and hospital, and the amount of money required are causing the young doctor to look for a lucrative practice rather than the one found in a purely rural community. The small private hospital, with ten or twelve beds, its title-holding physician, and two or three nurses, could render prompt treatment to the sick and injured to a large rural district, who otherwise would suffer from lack of care.

TO ERECT POLICEMEN'S HOSPITAL IN NEW YORK CITY

The raising of $5,000,000 for the erection and endowment of a hospital for members of the New York City police force and their dependents is the object of a campaign recently begun. Five hundred of the most prominent men in the city have been requested to serve upon the committee to raise funds, and subscriptions are now being received.

The hospital will be well constructed and thoroughly equipped in every way. It will have a capacity of 300. Many eminent specialists will serve on its staff, and there will be an up-to-date clinic. A small convalescent hospital will be erected at the seashore a few miles distant from the main building. The plot, hospital, and equipment will cost approximately $3,000,000 and $2,000,000 will be used as a permanent endowment, the revenue from which will help to support the hospital. It is thought that the total annual expenditure will amount to about $250,000, and such further revenue as may be necessary will be provided from the receipts of the annual Police Field Day games.

The hospital is intended to be used exclusively for the members of the Police Department and their families, without cost, but in case there should be room for the treatment of outside cases, its services will probably be extended to the public for the treatment of special cases. A pressing need for an institution of this kind exists, since neither the public nor private hospitals of New York provide moderate rates for the treatment of members of this department or their dependents, and it is manifestly important that policemen should have the best medical and surgical treatment when needed. Members of the police department live a peculiarly hazardous existence which exposes them to all kinds of weather and dangers such as no other employees of the city need to face. It is felt that the establishment of such a hospital will reduce the pension list and the sick list to a minimum, as well as serve to keep the members of the force in high state of physical efficiency. The treatment of dependents will relieve the men of home worries and duties.

Health and Modern Industry

Conducted by Barrow B. Lyons
15 Fort Washington Avenue, New York City

HOW THE HEALTH SERVICE OF OUR GOVERNMENT IS HELPING INDUSTRY

Considerable publicity of a general nature has been given to the work of the Division of Industrial Hygiene and Medicine of the former Working Conditions Service, the work of which is now being carried on in a more limited manner by the Public Health Service. Specific examples of what this work means to American industry are given in a little pamphlet issued by the National Conference of Social Work, entitled "What the Federal Government is Doing for Industrial Hygiene," by Bernard J. Newman, Sanitarian, U. S. Public Health Service (Reserve). The pamphlet describes the work in a general way and then goes on to say:

"Thus, one firm was found on investigation to be liberating in the air of the workrooms a large quantity of valuable graphite dust. To eliminate this hazard, a commercial firm installed an exhaust ventilation system which proved to be inefficient, with the result that health conditions continued to be bad, while the firm itself lost considerable quantities of valuable graphite daily. The office was appealed to for an engineering plan to remove the dust more satisfactorily. A Service officer conducted a series of experiments that resulted in a reduction of over ninety per cent of the waste, with a corresponding saving to the plant and the protection of the workers.

"Another plant engaged in abrasive manufacturing found its crushing process exceedingly dusty and the surfacing of the larger wheels likewise so dusty as to constitute a grave health menace. Here, also, the Service designed hoods for both the crushing and surfacing processes, thereby reducing in a marked degree the hazards involved.

"These are typical only of one type of constructive service rendered to industrial plants; other types related to occupational diseases. One such came from a plant where there had been an epidemic of furunculosis. Fifteen men in one department, constituting the entire force, had from seven to ten boils each covering their forearms. The plant was unable to account for the trouble, but suspected a grease which was used to cover metal bars handled by the workers. An intensive study showed that the grease itself had no effect, but the unhygienic practice of the men of washing in a barrel of paraffin oil and then wiping their hands on waste, also used in common, had communicated furuncles from the worker originally infected to all the other workers.

"In another instance, a plant sought assistance relative to two processes in their industry where the men claimed a health hazard was present. The plant officials did not believe such a hazard existed, but wished the Service to direct a study to make a definite determination. When the survey was completed, the hazards were found to be so slight as to be unworthy of consideration, but in the plant thirty other defective conditions were noted that warranted correction. Of these other hazards the plant officials were seemingly unaware, though they welcomed the information.

"In one western city, a plant superintendent took exception to a recommendation made to hood a process where lead fumes were said to be escaping; the reason assigned for the recommendation being that some of the men were suffering from lead poisoning. This official felt the statement was a reflection on his management, as he aimed to keep his plant as free as possible from hazards. In confirmation of his contention, he submitted a letter from the plant physician contradicting the findings of the Service officers. The result was that physical examinations were made of one hundred employees. In thirty-one cases symptoms of lead poisoning were found. The recommendations were then accepted and a special letter written by the plant commending the work done.

"When it was suggested to a group of employers that the service was willing to undertake a study of cutting oils and compounds, twenty-six firms in one locality offered their plants for the necessary research, stating that such oils and compounds constituted a serious problem upon which they would welcome advice in order to eliminate exposure of their workers to furunculosis and folliculitis.

"From the foregoing it is readily seen that the variety of service called for is extensive. Perhaps its scope is better shown when it is noted that it extends beyond the walls of the plant into the community. Thus, several towns within industrial zones have been surveyed that the hazards arising from the improper disposal of sewage, from the use of a nonpotable water and the occupancy of insanitary dwellings might be noted and plans made for their correction. One construction camp sought and obtained from the Service plans and specifications for a waste incinerator so designed that it could be adapted to the needs of a camp of 200 workers or to one of 1,000 workers."

RETRAINING FOR DISABLED NURSES

Retraining which is being granted to nurses and other women who took an active part in the winning of the war, and who were disabled while performing their duties is an outstanding feature of the recent report issued by the Federal Board for Vocational Education. Approximately 34 per cent are enrolled in trade and industrial groups; about 32 per cent qualified for business and commercial training; and more than 18 per cent are fitting themselves for agricultural pursuits with strong indications that this number will be doubled.

Venereal Diseases and the Hospital

Conducted by Alec N. Thomson, M.D.
Director, Department of Medical Activities
The American Social Hygiene Association, 105 W. Fortieth St.,
New York City

A HISTORY METHOD FOR GONORRHEAL CASES

By HENRY A. FISHER, M.D., Assistant Surgeon, Genito-Urinary Department, Brooklyn Hospital Dispensary.

So many requests are being received for detailed information about Hospital and Dispensary records, particularly with regard to the gonorrheal patient, that Dr. Fisher was asked to prepare a somewhat detailed account of the Brooklyn Hospital method. This starts the subject. Our readers are asked to comment and criticize. Please be as painstaking as was Dr. Fisher and send us sample forms with your proofs that you have something better.

A concise, complete history is of the greatest value in the management of cases of acute or chronic gonorrhea. Facts of previous attacks, such as duration, treatment employed, kind and duration of complications, as well as any condition that affected or may have affected the urinary tract, are important in addition to the history of the condition present when the patient first presents himself. These should all be noted in some regular order so that they may always be readily and easily accessible.

For the past seven years the form in use at the Brooklyn Hospital Dispensary, Genito-Urinary Department has proved extremely satisfactory.

The system outlined always presents the history complete to date of last visit, based upon thorough knowledge of the patient's condition. The patient receives prompt treatment without guess work or questioning. Histories are always available; keeping patients under treatment until cured, or at least until rendered noncommunicable, is greatly simplified. Information is easily obtainable for statistical or other studies of the clinic activities.

The simple rules for entering the data coupled with the wall charts devised by Dr. N. P. Rathbun for systematically taking histories make the information recorded understandable by any doctor under whose care the patient falls. The following instructions suggest the steps that are necessary:

"The usual information required in every case is provided for at the top of the history sheet.

"Enter only positive statements.

"Under 'Family and General History' enter all points ascertained; any serious diseases had by patient; if married and how long; wife's health (particularly gynecological); miscarriages or stillbirths; number and health of children.

"If no information obtainable enter the word 'negative.'

"Under 'Previous Venereal History' record previous attacks of gonorrhea with dates, duration of each, complications, treatment received; over how long a period of time; pronounced cured by physician or not, and after what tests.

"If previous penile sores, number, location, incubation, duration, treatment; followed by secondary luetic manifestations or not.

"If history indicates lues (without open lesions) do not refer to Syphilis Therapy Division until Wassermann test is made.

"If no history of venereal infection enter word 'denied.'

"Under 'Present History' record symptoms in order of appearance; incubation (if indefinite give all exposures that might have bearing) treatment received; complications (kind and duration), noting type of treatment; check source of infection."

The history having been recorded, the patient takes the notes to the doctor who makes the examination. Again a wall chart is followed, supplementary questions are asked, and additional positive notes entered. The needed facts are few in number and easily fitted to a form. The illustration (Fig. 1) needs no explanation. In no case is the entire examination column filled out on the first day, as all the tests called for would not be made on the first examination. However, the findings of the first examination of any part of the genital tract, no matter when made, are entered in this column with the date in the column to the left. For instance, if the case first presents itself as an acute attack of gonorrhea, the prostate and vesicles ordinarily would not be examined before the fourth to eighth week, and the endoscopic examination still later. The findings would be entered in this column, however, with the date of examination to the left. Thus the condition of the genital tract as found on first examination is seen at a glance at any time.

For re-visits, the facts to be noted are conveniently arranged in columns printed on the back of the sheet (Fig. 2). This form is 9¼x11 inches in size. In the "Remarks" column are noted any new symptoms or complications that may develop, results of subsequent examinations, smears, and general progress. By "columnar" arrangement, the history sheet automatically presents a "graph" of progress to the practiced eye of the physician accustomed to the use of this method of recording. When a patient is apparently ready for discharge, the facts called for in the extreme right-hand column on the lower half of the first page are ascertained. Only if these are normal, and no trace of infectivity is found, the patient is discharged as cured.

When the patient is discharged as cured, or in the event of his ceasing to attend, the Survey of Case is made, which is valuable for statistical purposes and as

a measure of the efficiency of the clinic in combating venereal disease. To aid in entering the facts required in a concise, clear manner, a list of Official Abbreviations has been adopted, which is as follows, with examples of the abbreviations in use:

A.M... morning
B ..... bladder
Bly ... bloody
C ..... copious
Cl .... clear
Cly ... cloudy
D ..... drop
Dis ... discharge
F ..... few, full
Ft .... faint
Gon .. gonorrhea, gonococcus
H .... hours
I ..... irrigation
L ..... long
Lt .... light
M .... moisture, massage, many
P ..... on pressure
Par ... particles
S ..... short
Sh .... shreds
Sl .... slight
W .... watery

Use Roman numerals in stating number of attacks.

"Where an abbreviation represents more than one word, the context of the history will prevent any mistake in interpretation.

"In addition to the above, abbreviations in common use are permissible.

"*Illustrations.*—A.M. D.—morning drop; A.M. M.—morning moisture; A.M. D. P.—morning drop on pressure; C. Dis.—copious discharge; C. D. P.—copious drop on pressure; M. P.—moisture on pressure; M. F. B.—massage on a full bladder; M. & I.—massage and irrigation; W. D. P.—watery drop on pressure; F. Sh.—few shreds; M. L. & S. Sh.—many long and short shreds."

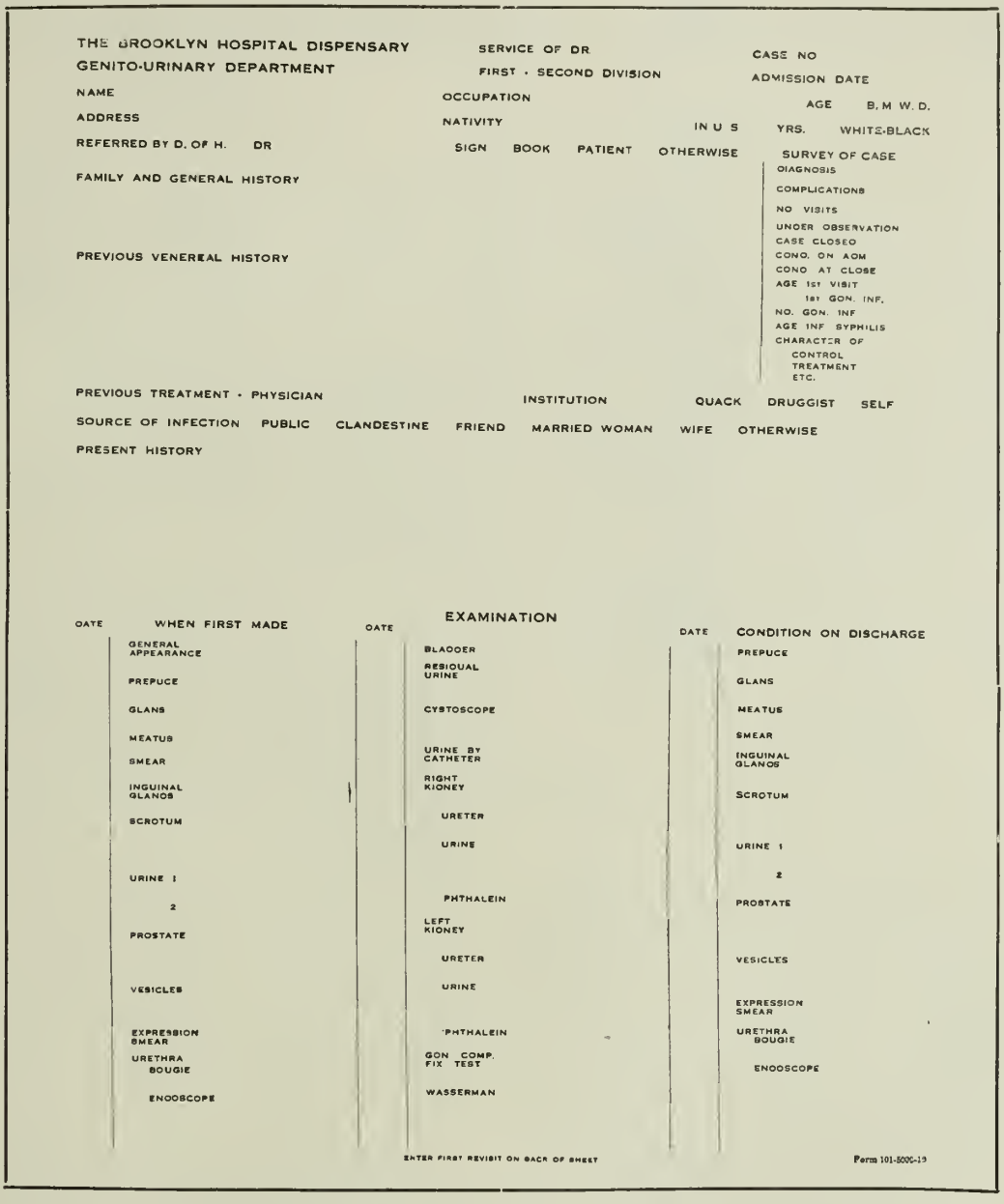

Fig. 1. The form which has been in use for seven years in the Genito-Urinary Department of the Brooklyn Hospital Dispensary for taking the histories in cases of acute and chronc gonorrhea.

The course of the patient as he passes through the Brooklyn Hospital Urological Clinic is as follows:

On his first visit, his history is taken by the "New" Historian; the patient carries this history to the doctor assigned to Higher Treatment, who, after reading the history, makes the indicated examinations, recording the findings in the appropriate places, pre-

NAME NUMBER

DATE	DISCHARGE	TIME MEATUS	URINE 1	URINE 2	REMARKS	TREATMENT

Fig. 2. For re-visits the facts to be noted are conveniently arranged in columns on the reverse side of the form illustrated in Fig. 1.

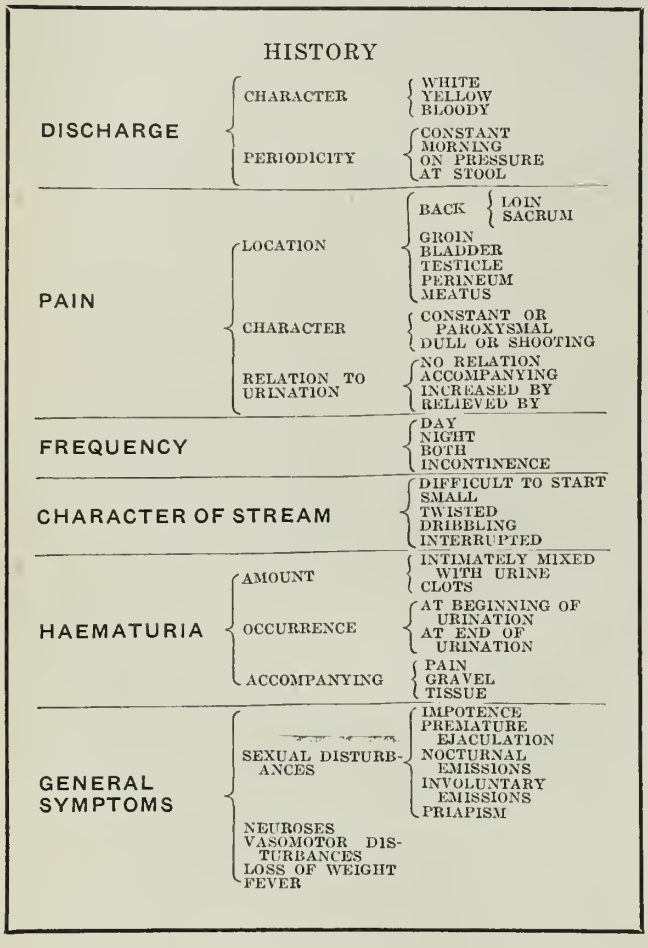

Fig. 3. History Chart.

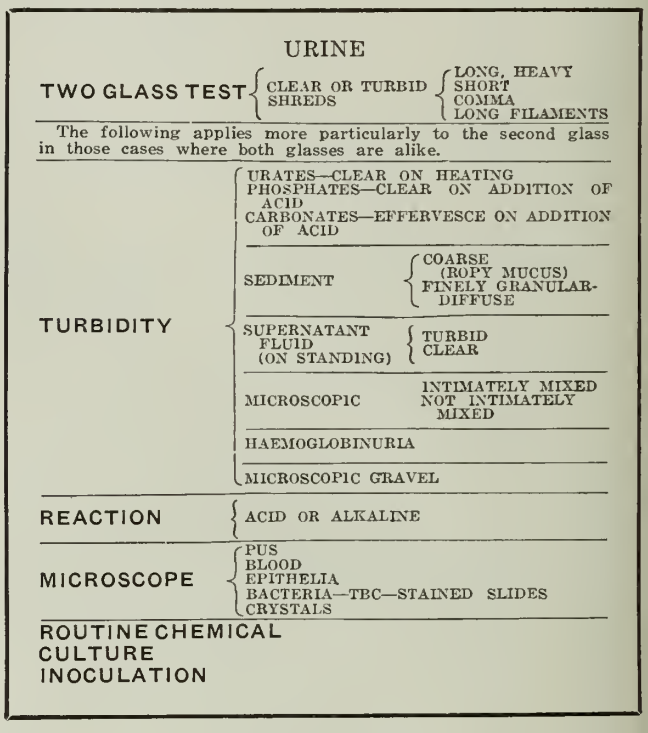

Fig. 4. Urine Chart.

scribes treatment, and directs the patient when to return. On the second and subsequent visits, the patient is seen by the Director of Division, interviewed, meatus and urine examined, and findings noted, and treatment prescribed. If a smear is desired, the patient is sent to the laboratory and the smear is taken there; if a prostatic examination is desired, he is referred to the physician assigned to that work; if an endoscopy is desired, he is referred to the physician assigned to the endoscopy and cystoscopy room; if an examination of the urethra with a *bougie à boule* is desired, he is referred to the doctor at the Higher Treatment station. Reports of these examinations are written by the immediate examiner, placed on a file and later incorporated with the history. When finally the patient is apparently ready to be discharged, a full examination is made (extending over several visits) to determine that he is free from infection and its results. All cases before being finally discharged are referred to the Chief of Division, who carefully checks all entries and decides whether further examination or treatment is advisable. If not, the patient is "Discharged as Cured" and the history closed.

As a further aid to conciseness, all of our histories and clinical notes are typed. The history taken by the doctor, the notes made by the Director of Division, the smear reports, and the reports on the various examinations, are written on printed white sheets which are the same as the buff-colored history form. These scratch sheets are given to the clinic clerk, who types them in the proper places on the history sheet, which is never in the hands of the patient.

A closed history is removed from the active file and placed in a binder, ready for reference if the patient later applies for treatment or advice.

If a patient ceases to attend the clinic, without having notified the physicians of his inability to attend, a note is sent, urging him to return. Three notes are sent at seven-day intervals if the patient does not respond, and then the history is removed from the active file, closed as "left of own accord," and bound.

TREATMENT AT SPECIAL HOSPITALS

Arrangements for sending certain classes of patients to specific hospitals with special facilities for treatment have been made by the office of the Surgeon General of the Army. The office has issued a list of nineteen classes of cases with the hospitals which will treat such cases. The classes of cases include amputations, chronic arthritis, blindness, deafness, epileptics, mental defectives, insane, maxillofacial, general medical cases, functional neuroses, drug addicts, inebriates, peripheral nerve injuries, and paralyses; speech defects (not neurotic), general surgical cases, pulmonary tuberculosis, wounds or injuries of the skull, brain, or spinal cord, and organic disease of the nervous system.

Meetings, Conventions and Conferences

AMERICAN CANNING INDUSTRY CELEBRATES CENTENARY

During the week January 26-30, there was held in Cleveland, Ohio, the Thirteenth Annual Convention of the National Canners' Association, in conjunction with the Cannery Machinery and Supplies Association, and the National Canned Foods and Dried Fruit Brokers Association. Nearly five thousand members of these associations were present. The general sessions and sectional meetings were in almost continuous session. Addresses were made by Presidents Gerber, Sindall, and Daily, by President-elect Sears, and by H. W. Phelps of the American Can Company. The keynote of all these addresses was the inspection and publicity campaign just about to be launched. During 1919 this inspection service was in operation for vegetables and fruits in Southern California, Illinois, Michigan, Wisconsin, Ohio, Indiana, Iowa, Minnesota, Nebraska, and New York, for sardines in California and Maine, and for salmon in Alaska and on the Pacific coast. Already it is planned to extend the service in 1920 to Utah, Colorado, New Jersey, Maryland and Delaware, with the prospect of soon encompassing the entire industry. For 1920 fifty million cases under inspection are assured. The centenary of the American canning industry was celebrated at this Cleveland meeting. One hundred years have passed since the first rather crude efforts of Ezra Daggett and Thomas Kensett in New York with salmon, lobsters, and oysters, and those of William Underwood and Charles Mitchell in Boston with damsons, quinces, cranberries, and currants.

Improved Canning Methods

The early canning methods were crude, rule-of-thumb processes, and while heating the product—what we now call sterilization—was the basis of the whole canning system then as now, it was poorly understood and the necessity of varying the temperature and the period of processing with the different products was either not appreciated or was to some degree neglected.

In its early history the canning of food was in a sense a side line with most canners, and the canneries were often makeshift, temporary affairs, which did not always comply with modern ideas of sanitation. The canner soon learned, however, the close connection between proper sanitation and the quality of the product he was packing, so that today this vast industry, representing an investment of over $200,000,000, has developed to such a point that the consumer is assured, within the limits of human fallibility, of canned fruits, vegetables, meats, fish, and milk that are wholesome and nutritious, attractive to the eye and appetizing to the taste, and which in the non-growing seasons are almost a necessity to the careful housewife who wishes to offer to her family a well-balanced, nourishing dietary.

The National Canners' Association is a nation-wide organization, founded in 1907, and consisting of about 1,100 producers of all sorts of hermetically sealed canned foods which have been sterilized by heat. The Association is almost unique in that it neither produces, buys nor sells, its only purpose being to assure, for the mutual benefit of the industry and the consuming public, the best canned food that scientific knowledge and human skill can produce.

In the effort of the canners to produce the best canned food in the world, the Association has established a laboratory in Washington, where Dr. Bigelow and his corps of workers are constantly occupied in studying the various problems of the industry as they affect both the canner and the public, and as they have a bearing on the safeguarding of the American table. Every aspect of the canning industry is considered in this laboratory and every influence that might have any bearing on the healthfulness or wholesomeness of the product is subjected to careful and intelligent scientific investigation.

The humble tin can has been the subject of detailed study by this laboratory, until today over six billions of these cans are produced annually, and they offer to the packer the safest, most practicable and scientific food container that human skill and ingenuity have been able to devise.

It is not always appreciated that the canning of foods is one of our greatest conservation agencies. In the time of plenty, when foods are given us by Nature in an abundance too great for immediate consumption, the canner takes these foods at the time of their greatest excellence and by proper methods of processing and sterilization seals them hermetically in cans and makes them available for our use when fresh foods are only a memory, or, if on the market at all, are offered at such a high price that only the rich can buy them. The location of canning factories is not a hit-or-miss proposition. They are located where they are because experience has shown that those are the sections where the various vegetables or fruits of the best quality can be produced, and where it is possible to reduce to the smallest limit the interval between the gathering of the crop and its introduction into its hermetically sealed final abiding place.

Another progressive step is marked by the recent adoption by a considerable portion of the industry of a system of voluntary inspection. The canners have realized that a prejudice against canned foods still exists in the mind of many consumers. They believe that the prejudice against their product can be removed by their own efforts, and accordingly this system of inspection has been installed in most of the prominent packing states.

FOREIGN CORRESPONDENCE

GENERAL HOSPITALS IN GREAT BRITAIN

(From Our London Correspondent.)

London, Jan. 16, 1920.

In my last letter I drew attention to the state of affairs as regards the hospitals of Great Britain, and stated that something in the nature of a crisis had arisen with respect to their control and management.

During December there has appeared in the Daily Chronicle, a London journal of prominence, a series of articles in which was set forth the serious financial condition of the general hospitals throughout Great Britain. It was shown that some hospitals were overdrawn at the bank, others have had to sell securities and realize investments, while others have actually had to reduce the bed accommodation and close wards. However, this question was discussed in my last letter and it was pointed out that St. Bartholomew's Hospital, the richest and, on the whole, the most important hospital in Great Britain, was in somewhat dire straits and had to shut down its convalescent home in the country. The reason, or at any rate the main reason, for this perilous situation is usually said to be the strain imposed on the hospitals by the war, bringing about the falling off of subscriptions due to increased taxation and local rating, and the increased cost of commodities and of salaries and wages. Probably these are not by any means all the causes. Sir Napier Burnett, writing in the *Edinburgh Medical Journal* for December last, regards these explanations, although important, as only part of the truth, for the financial strain on many hospitals did not originate with the war. There has been for many years a steady change going on in the class of patients applying for hospital treatment. Originally restricted to a lower stratum of society, "the sick and lame poor," the hospital subscription list was usually adequate to meet the annual expenditure; but now many hospitals draw their patients from a much broader basis of the community, without having secured a proportionate increase in the number of subscribers. And, further, apart altogether from the increased cost of everything in consequence of the war, the elaboration into departments of the whole system of medical treatment and operative surgery has been increasing the expenditure beyond the possibility of its being met by voluntary agencies. So far as paying wards, or the institution of hospitals arranged on a paying basis, are concerned, Burnett has this to say: "Very few of the hospitals reserve accommodations for paying patients." He might have said that scarcely any of them make such reservations, and then only on a limited scale. At the present time the extremes in the social scale are well catered to as regards hospital provision, but between the private hospital at five guineas a week, and the free general hospital, there is practically no provision made for the great majority in each community, the so-called "middle class," those who cannot afford the expense of the private hospital and yet who neither require nor desire to be pauperized by accepting the public charity. These people are ready and willing to pay one, two, or even three guineas ($5.25, $10.50, or $15.75) per week for a bed in the general hospital. There would naturally be no difference in the treatment supplied, but if a patient desired some extra accommodation or luxury, one has a little difficulty in understanding why such hospital provision should not be provided.

Burnett summarizes some of the suggestions for the solution of hospital problems as follows: (1) The coordination of all hospital beds within a defined area—such an area as is served by the main central hospital; these beds would be under the supervision and management of a hospital council whose office would be to act as a "clearing house" in all matters, financial and administrative, pertaining to hospitals. (2) A greatly increased provision of convalescent hospital accommodation. (3) The consideration of establishing "paying beds" or hospital provision for paying patients. (4) An investigation into the whole basis of hospital finance. (5) Establishment of "team" work in hospitals with payment of the medical staff. (6) A new appreciation of the out-patient department, both from the point of view of the patient and the medical student. (7) The establishment of a hospital association for the purpose of instituting a hospital survey of the region or area in which it is situated, with sub-committees to investigate such aspects as hospital accommodation and construction, hospital finance, staffing hospitals, nursing in hospitals, medical education and research, coordination of present organizations, cooperative buying, and other subjects.

The question of paying hospital staffs is another matter which will soon have to be considered. As Burnett says, no longer can the voluntary purist hold the field in the face of the principle now accepted of state payment for pensioners, including the payment of medical officers, and the state payment for venereal diseases and tuberculosis. Surely it is not illogical reasoning to argue from these standpoints the payment of a staff for dealing with, say, fractures, hernia, etc.

Team work has been neglected in the British hospitals. It has a great deal in its favor, and its value was conclusively proved during the war. In fact, while there is much to be urged in support of the proposal to pay the medical staff, much more may be urged in support of the proposal to have pay wards in hospitals.

While most signs seem to point to the view that the

voluntary hospital system in Great Britain is doomed, it is likely that their end is not only not in sight, but that the system may be prolonged indefinitely; that is, with certain improvements and modifications. Sir Henry Burdett, the proprietor of *The Hospital*, who is known and esteemed throughout the length and breadth of the land, and who was mainly instrumental in establishing the hospitals of the country, perhaps those of London in particular, on a good financial basis, holds the firm belief that the voluntary hospital system can be maintained permanently. He has propounded his views in his journal, and they are manifestly entitled to close consideration. The State is not in a position at the present time to take over the control of the hospitals, even if this plan were deemed desirable. The ministry of health is already overwhelmed with urgent and insistent work, and it is idle to think for a moment that the hospitals will occupy the attention of its councils, at least for some time to come. Therefore, Sir Henry Burdett, by expounding the financial difficulties which beset the hospitals and by suggesting solutions, has done and is doing very excellent service to the community. His aim and wish, and those of his colleagues, have been to create a feeling of enterprise and hope in the breast of every one concerned by setting forth the actual position to be dealt with, not omitting the material fact that at present less than one in ten of the population gives anything to the support of these institutions. It is of hopeful augury that on the twenty-third of January Viscount Sandhurst is to preside at probably the most important meeting of the members of the British Hospitals' Association which has been held since its foundation by Sir Henry Burdett in 1884. On this occasion, Sir Arthur Stanley, the head of the British Red Cross Organization, will sketch in detail a scheme to which reference has been made in some of the lay journals. At this meeting Sir Arthur Stanley will submit his proposals and suggest that the Red Cross is one source from which aid to the hospitals may be forthcoming. It may be said that the Red Cross has already given to hospitals throughout the country £1,300,000 ($6,500,000) and £250,000 ($1,250,000) to the hospitals of London out of the surplus funds raised during the war, and, as said before, is now paving the way to render still further assistance. After this meeting has taken place there will be a good deal to write concerning the future of the voluntary hospitals in Great Britain.

In the meantime, it may not be out of place to suggest that those who "stand pat" for a continuance of the voluntary system do not appear always to have fully grasped the significance of the changed conditions. As Sir Napier Burnett pointed out, these changed conditions are by no means wholly due to the results of the war. They existed before the war, and the war has merely greatly exaggerated and intensified them, brought them, in fact, into the bright limelight of publicity. It certainly is true that the voluntary system must stand for a time, it appears probable for a considerable time, but it must conform as far as is possible to changed conditions. When the system was inaugurated on comparatively modern lines, hospital accommodation was intended for only one section of the community, "free to the deserving poor." The deserving poor outside the lowest stratum of society are as often, if not more often, found among the so-called middle class than among the artisans and manual workers. Those, too, who are striving to perpetuate the voluntary system make little or no reference to the pay hospital or pay ward system, which, after all, seems the most rational way for a hospital to maintain itself. But the idea is beginning to germinate and develop in the brains of many Britishers. In the supplement to *Hospital*, January 17, 1920, a correspondent ventilates his views thus: "Without disturbing in any way the relations which exist between the honorary visiting staffs and the hospitals, and following and extending a plan which has survived the test of experience, provision might be made for: (1) Free maintenance, nursing, and medical attendance at the discretion of the almoner. (2) A nominal charge for maintenance and nursing, and free medical attendance. (3) Full charge for maintenance and nursing and, if necessary, free medical attendance. (4) Charges to suit the means of patients and in accordance with the character of the accommodation, without medical attendance, in which case the wards or rooms would be free to the medical practice of the district. In the opinion of the writer, the modification of the existing system in the manner outlined would do much toward consolidating the efforts of the medical practitioner and the hospitals to combat disease, and would form the basis of an appeal to the public so strong that all financial difficulties would be swept away, and in time the hospitals might become largely self-supporting. All the advantages of individual effort would be retained and the disadvantages of a State department averted."

The director of the Cancer Research Laboratories of the Middlesex Hospital has given out recently a very important statement. He points out that during the war cancer research was stopped to a very considerable extent, owing to the fact that other problems of greater immediate importance were presented for solution, and no great achievement beyond steady work was possible at the Middlesex Hospital, or on the part of other institutions in Great Britain, such as the Imperial Cancer Research Fund and the cancer hospital at Fulham, while similar reasons prevented any great activity in France. Since the armistice, the greatest national need has been reconstruction and this is the case in regard to cancer research. Also it is a fact that in this connection the financial side of the question is vital. It has practically come to the pass at the Middlesex Hospital that they have not the money that is needed and have been obliged to work with a number of untrained assistants. A few days ago the director acknowledged the loan by the British Ministry of Munitions of five grammes of radium bromide, for experimental and therapeutic purposes. The feature of the acquisition is that, though the quantity is less than one-fifth of an ounce, it is the largest that has ever been available for use in bulk in the work of research. Its value at present market prices is close to £100,000 ($500,000) and the loan is made subject to termination at ten days' notice if the government should, unhappily, need to make such a demand. The Ministry of Munitions had the radium on hand after Armistice Day because it was no longer required for the manufacture of gun-sights and other articles of which luminosity at night is an essential feature, and when Mr. Cecil Lyster, who has devoted his life to cancer research, was consulted, he at once suggested that if it were lent to the Middlesex Hospital in one parcel it would render possible developments hitherto hardly dreamed of by any investigator.

The late Sir William Osler, one of the most versatile of physicians, was perhaps more distinguished as a clinician than in any other branch of medicine. He was essentially a practical man and was intensely interested in hospitals and their work. In this particular he differed widely from the ordinary run of Regius Professor of Medicine of Oxford, and from no one more than his immediate predecessors, Sir Henry Acland and Sir Burdon Sanderson.

Book Reviews and Current Hospital Literature

ESSENTIALS OF SURGERY. A Textbook of Surgery for Student and Graduate Nurses and for Those Interested in the Care of the Sick. By Archibald Leete MacDonald, M.D., the Johns Hopkins University; formerly in charge of the department of anatomy, University of North Dakota; lecturer on surgery, Nurses Training School, St. Luke's Hospital, Duluth, Minn.*

The book covers the principles of surgery in an elementary way. The matter is presented simply. Only general statements are made concerning etiology, pathology, and the natural course of the disease. The treatment is briefly indicated. Demonstrations for class work are described at the end of every chapter. These demonstrations are very good and will prove helpful to the lecturer.

The book is not complete enough in detail for a study book for class work, but it is an excellent guide book for the teacher.

THE NEWER METHODS OF BLOOD AND URINE CHEMISTRY. By R. B. H. Gradwohl, M.D., director of the Gradwohl Laboratories, St. Louis; and A. J. Blaivas, assistant in the same.†

This handy manual, while designed especially for the laboratory worker, might well find a place in the library of any doctor who does his own laboratory work. While short and concise, it contains an extensive bibliography for those desiring further information on a given subject. Ordinarily but one test is given, *e.g.* Benedict's for glucosuria, Haines' and Fehling's being omitted. Most of the color tests are based on the Hellige Calorimeter, which the authors consider essential.

In the introduction the value of blood chemistry is set forth. Part I is devoted to the chemistry of the blood; Part II to the chemical and microscopical examination of urine; Part III sets forth at length the blood findings in certain conditions and their interpretation.

MENTALLY DEFICIENT CHILDREN, Their Treatment and Training. By G. E. Shuttleworth, B.A., M.D.; Fellow of Kings College, London; Honorable Consulting Physician, formerly medical superintendent, Royal Albert Institution, Lancaster, for the Feeble-Minded of the Northern Counties; and W. A. Potts, M.A., M.D., medical officer of the Birmingham Committee for the Care of the Mentally Deficient, etc.‡

The authors have succeeded in presenting a full discussion of mentally deficient children in a pocket size booklet of 284 pages. The pathology, symptomatology, and bibliography are up to the minute. The plates taken from the authors' own cases add a great deal to the completeness of the book.

Chapters two and three are a little too local, the material in these chapters consisting of reports of mental deficiency acts and investigations in England, including many local names. Chapter one, however, shows that while the authors are inclined to lay most stress on work done in England, they have not forgotten to give credit to American and French institutions. Indeed, it is gratifying to read of the good work done by various American counties and states towards the improvement of the mental defect.

The booklet reads well and can be used not only by physicians, but also by nurses and school teachers.

THE REALITIES OF MODERN SCIENCE. An Introduction for the General Reader. By John Mills, Research Laboratories, Western Electric Company, Inc.; member, American Physical Society. Author of "Radio-Communication," etc.§

The development of physical science establishes the essential unity of all natural processes. School curricula which consider physics and chemistry so separate that they are studied in different years and from texts which carefully refrain from encroaching on each other's fields are perhaps to blame for the confusion that exists in the average conception of scientific relationships. All who feel the need of a better orientation in modern science will find this book by Mr. Mills of distinct service. It gives an interesting account of the historical development of the fundamental concepts of science and makes an easily comprehensible statement of quantitative relationships. It should appeal to the average well informed reader as well as to the physician.

The realities of modern science he states to be matter, indestructible and irreducible; and energy, exactly measurable and subject to transformation, but not to loss. In chapters on the motions and interactions of electrons, the continuity and correspondence of molecular states, electrolytic dissociation, molecular magnitude, and molecular energy, he discusses the electronic constitution of matter which today is commonly accepted. "Its development has been so rapid that few scientists besides those actively engaged in research have as yet adopted its terminology and the necessary point of view. In terms, however, of electrons and quanta, the scientific progress of the next few years will undoubtedly be expressed."

CURRENT HOSPITAL LITERATURE

HOSPITAL MANAGEMENT. A Handbook for Hospital Trustees, Superintendents, Training School Principals, Physicians, and All Who Are Actively Engaged in Promoting Hospital Work. By Charlotte A. Aikens, formerly superintendent of Columbia Hospital, Pittsburgh, and of the Iowa Methodist Hospital, Des Moines; late director of Sibley Memorial Hospital, Washington, D. C., etc.; illustrated. Philadelphia and London: W. B. Saunders Company, 1919, p. 488.

* J. B. Lippincott Company, Philadelphia, 1919, $2.
† C. V. Mosby Co., St. Louis, 1917, $3.
‡ P. Blakiston Son & Co., Philadelphia, 1916, $2.50.
§ The Macmillan Co., New York, 1919, $2.50.

THE MODERN HOSPITAL

A Monthly Journal Devoted to the Building, Equipment, and Administration of Hospitals, Sanatoriums, and Allied Institutions, and to Their Medical, Surgical and Nursing Services

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THE HENRY FORD HOSPITAL IN TIME OF WAR: U. S. ARMY GENERAL HOSPITAL No. 36

By ALEXANDER T. COOPER, Lieutenant Colonel, Medical Corps, U. S. Army*

In October, 1918, this huge million dollar hospital was turned over to the Government for use as a U. S. Army General Hospital, at a rental of one dollar per year. Much work had to be done in assembling and placing equipment, and making the alterations necessary to fit the plant for army purposes. How the entire hospital was prepared for occupancy by the army, with all departments coordinated under one commanding officer is described in this article. Over two thousand patients were cared for from November, 1918, to August, 1919. The great undertaking was carried out successfully, and every sick and wounded soldier was given the best physical and mental care.

DESPITE the strictly military atmosphere, U. S. Army General Hospital No. 36 never outgrew its maiden name, Henry Ford Hospital. Known to Detroiters, in fact, throughout the country, by the name of the man who built it and then rented it to the Government at a time when demand for hospital room was at high tide, the public could not accustom itself to recognizing this post as an army institution. Its size, its beautiful architecture, and its surroundings made it known as "the million dollar hospital." In contrast the rental of $1.00 a year was but a mere formality. From outer extremity to outer extremity the main building measured the same as the national capitol in Washington, 750 feet.

The entire hospital and grounds were approximately twenty acres in extent. The buildings may be enumerated as the main building, the surgical building, which was called by the Ford authorities "private patient building," the operating pavilion, the laboratory building, the service building, the power house, and the garage.

All of these buildings, with the exception of the main building, were built prior to 1915. In 1917, however, the main building, intended to provide 500 single rooms with bath and toilet, was begun. The plans were decided upon after several months of study by the Ford Hospital authorities. However, the army desired that the wards should not be completed as private rooms in the main building, except in the east wing, which was used as nurses' quarters, isolation wards, and officers' wards. All of these buildings were connected by underground tunnels.

The lease renting the entire hospital buildings and grounds was drawn up and signed on October 5, 1918, Mr. Ford leasing the hospital to the Government for the sum of $1.00 per year, the lease to be renewable yearly during the period of the war at the option of the Government and not to run for more than thirty years, or more than eighteen months after declaration of peace between the United States and Germany.

The main building of the hospital, on the arrival of the commanding officer, was far from completion. Scarcity of labor and difficulty of assembling material caused delay, and because

*Author's Note: Acknowledgment is hereby made to Fraser H. Hood, formerly First Lieutenant, Sanitary Corps, author of "History of U. S. Army General Hospital No. 36," and Harley C. Hines, formerly Second Lieutenant, Sanitary Corps, editor of "The Thirty-Six Review," and staff. Much of the data in the following article was taken verbatim from the above mentioned publications and acknowledgment is herewith made.

the other buildings on the ground were taxed to capacity to house the nurse corps, enlisted personnel, administration offices, and store equipment, which rapidly began to arrive, it was not possible to receive overseas patients before the last of February.

Period of Adjustment

During the month of January the influenza epidemic compelled the authorities to improvise a ward in the corridor connecting the old hospital buildings. Notwithstanding over 150 admissions for influenza among the command, no deaths resulted among the officers, nurses, or enlisted men of the post. But while there were no overseas sick and wounded to care for, there was much work to be done in assembling and placing the equipment, supervising the alterations necessary to fit the plant for army purposes, organizing the several departments and getting them in readiness for the services awaiting to be rendered. The amount of alterations was by no means inconsiderable. To most of the officers recently entering the regular army from Civil life, the ideas of army hospitals were but dimly envisaged, and the methods of procedure were far from clear. So that the first three months after the hospital became a Government agency were a period of adjustment.

The registrar's office showed November 25, 1918, as the date the first patient was received in the hospital. The total number of admissions was 2,040.

The military organization of the hospital did not begin to assume form and substance until October 30, 1918, when a commanding officer was assigned to the hospital. After the commanding officer was assigned, there rapidly arrived an adjutant, quartermaster, medical supply officer, and other medical department personnel pertaining to the professional duties.

Administration offices were first established in the surgical building on the first floor. This building also housed for a time the members of the Army Nurse Corps, who lived on the third floor, and the second floor was used as a ward. The basement of the building was used, first as a storeroom, then as a post exchange, then as a guardhouse.

Construction of Surgical Pavilion

It was, perhaps, in the construction of the surgical pavilion that the most care was expended by the Ford authorities. There were twelve operating rooms, all interconnecting, and each with a door opening into the main corridor. There was a double heating plant which obviated exigencies that would have arisen had there been but one heating plant and it had gone dead. The system of ventilation permitted the tight closing

A general view of the main building of Army General Hospital No. 36, Detroit, Mich., characterized as "one of the finest of the Army hospitals" by Surgeon General Ireland. This was formerly the Henry Ford Hospital, built by the automobile magnate.

of all doors and windows, and the heating arrangements were constructed with a view of varying the temperature and humidity of the air. The system of sterilization provided for sterilized cold water, as well as hot water, and the plumbing was chosen with a view to contributing all that was possible to the convenience of the operating surgeons and assistants.

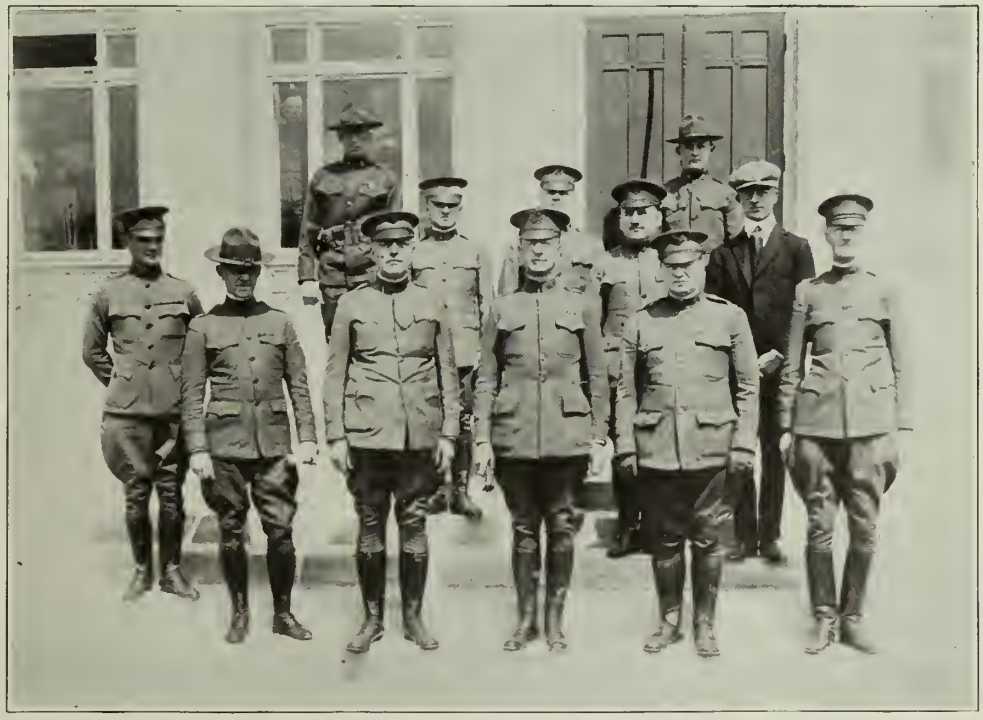
Since the original idea of Mr. Ford in the founding of his hospital was to make it a place where research would be carried on, it was necessary to provide facilities for presenting the results of investigation. One of these facilities was a large, well-lighted amphitheater. The first impression one got when he entered this amphitheater was that some attention had been paid to esthetic demands. In size, decorative effects, and lighting it appealed to one's sense of harmony and proportion. This amphitheater was in direct connection with each of the twelve operating rooms, so that for clinical purposes it was readily available. The system of artificial lighting in this amphitheater was well deserving of special mention. The overhead system was employed, and after repeated experiment, the architect was able to secure a result that prevented any interference of light, which would produce shadow effects.

By way of parenthesis, but for this splendid amphitheater the administration of the Army Hospital would have been greatly handicapped. For a long time it was the only place of public assembly to be had at the post. Later, the construction of a Y. M. C. A. hut and a Red Cross building met the growing auditorium demands. Also, when the hospital was running smoothly, daily clinics were held here by different members of the staff. This building also provided offices for the chiefs and the various heads of the section.

The laboratory building provided space for the dispensary, the morgue, x-ray department, bacteriologic and pathologic laboratories, the dental clinic and the animal house.

Main Kitchen Model of Its Kind

One of the very essential features about a hospital is the kitchen. The main kitchen, in connection with the hospital, might well be taken as a model for future construction. Its spacious proportions, its ventilation, fume hoods, tiled floor, enameled walls and ceiling made it a place of beauty, and, at the same time, easy to keep clean and sanitary. Its large pantries and storerooms enabled the work to be done with the least possible waste of time. It was thoroughly modern in its equipment of ranges, both gas and electric, steam kettles and dishwashing machines, many of which the government supplied.



Major General Merritte W. Ireland, Surgeon General of the Army, and a group of officers who have just completed an inspection of United States Army General Hospital No. 36.

This kitchen space for the patients in the hospital was provided for in the service building, which also supplied storeroom for the commissary, refrigerators for the meat supply, office room for mess officers and assistants, and the

laundry. On the second floor was established a dining room for duty officers, with a small separate kitchen. The third floor of this building, which was divided into individual rooms, was used as quarters for non-commissioned officers.

Overseas patients began to arrive February 20, 1919, and were housed on the second floor of the surgical building. However, as wards in the main building were gradually completed, capable of accommodating approximately ninety patients per ward, patients were soon moved into the main building. As fast as the construction department completed a ward and notified the commanding officer that it was ready to be equipped to receive patients, it was equipped and the surgeon general's office notified, and the wards were rapidly filled to capacity. Equipment for the entire hospital which had been requisitioned for in November began to arrive in the early part of January and was stored in the hallways and basements.

Approximately May 1, 1918, the nurses moved out of the surgical building into their permanent quarters in the east wing of the main building. The first and second floors of the west wing of the main building were assigned to the educational department, and this department proceeded to rapidly and efficiently organize and equip the two floors, so that this department was ready for work as soon as there were patients assigned to it.

Entire Hospital Occupied by Army

By June 1, 1918, the construction division notified the commanding officer that the entire hospital was completed for occupancy by the army as a hospital, and the following arrangements were made:

The first floor of the rotunds of the main building was divided by railings and used as headquarters. The rest of the central part of the building —five upper floors—was used as barracks for enlisted men on duty at the hospital.

In the basement of the main building was situated the post exchange, the storerooms of the quartermaster department, diet kitchens, kitchens and mess rooms of the nurses on duty in the hos-

The non-commissioned officers were quartered in the Service Building, which also contained space for the kitchens, laundry and storerooms.

pital, and kitchen and mess room for enlisted men on duty in the hospital. The patients' kitchen was still retained in the service building, which was connected with the main building by a well lighted tunnel. Through this tunnel the patients' food was conveyed by an electric truck to their dining room and served hot from a large steam table. The cafeteria system was used in the dining room. Those patients who, because of wounds, crippling, or other reason were not able to come to the dining room were served either at tables in the wards or in bed. The food was sent up on dumb waiters from the kitchen and served hot from coal oil stoves in the wards—a small diet kitchen being improvised in each ward.

Before the construction of the main building, this surgical building was used as hospital headquarters. The offices were on the first floor, the second floor was utilized as a ward, and the third floor was used first as quarters for the nurses, and later as a ward. Since the construction of the main building, the entire building has been turned into surgical wards.

In the east wing of the main building (the third and fourth floors of which were divided up into private rooms), were assigned the permanent quarters for the nurses, isolation wards, on the second floor, and sick officers' ward, on the first floor. In this wing also were three large wards capable of accommodating ninety patients each, given over to the surgical department; also space for the Red Cross and space for the physiotherapy department. In the west wing were arranged six large wards capable of accommodating ninety patients each, two wards being assigned to the surgical service and four wards assigned to the medical service. Space for the educational department was assigned in this wing also.

The wards filled with patients as rapidly as they were finished. The completed wards gave the hospital a bed capacity of 1,500—this exclusive of barracks room for the enlisted men on duty, and quarters for nurses. In connection with all of the wards were rotundas where the patients might spend hours in recreation or instruction. The wards themselves were well-lighted, large enough for ninety beds comfortably, and at either side large porches allowed the bed and wheel chair patients to get plenty of air and watch outside activities.

Early in the spring the Y. M. C. A. decided to construct a building, which was completed in May and was of great benefit in keeping up the high state of morale of this hospital.

The Red Cross building was completed only about one month before the hospital closed. However, the Red Cross authorities were indefatigable in the activities which were assigned to them and did a great deal of good.

In this connection should be mentioned the excellent work done by the Knights of Columbus, Salvation Army, Jewish Welfare Board, and the American Library Association which established and completely equipped an excellent library and supplied a librarian.

One of the problems which confronted the army authorities as the hospital organization began to

take form was space for an athletic field, particularly a baseball diamond. It was not seen at first where space for this important item could be provided. The average officer soon learns that a baseball field near the men's quarters will go a great way toward keeping the men of a command happy and contented. In spite of limited space the men laid out a baseball diamond in one corner of the ground, which served the purpose very well, and the good accomplished in morale more than offset the broken window panes occasioned by its nearness to the hospital buildings. The situation also permitted bed patients to view athletic activities from the wards.

This is a gala day for the patients at United States Army General Hospital No. 36. The gaily decorated automobiles lined up before the main entrance have been furnished to take them to view the Red Arrow parade.

It is also well to mention the hospital paper "The Azuwer," published by the enlisted men on duty, patients in the hospital, and a well qualified staff consisting of more or less experienced newspaper men, which were ordered to the hospital for duty with the newspaper by the Surgeon General's office. This publication was a high type of journalism and proved a force for good during the life of the hospital. It paid its own expenses by advertisements and subscriptions.

The first operation, appendictomy, was performed December 23, 1918. The operations were varied in character and were of great interest.

The section of general surgery was organized November 16, 1918. Under the section of general surgery came the orthopedic section which was organized November 3, 1918; the genito-urinary section organized January 6, 1919; the section of neurology organized February 26, 1919, and the x-ray laboratory, which was organized as a section on January 8, 1919.

The entire surgical service was well organized and conducted by efficient and capable surgeons.

The physiotherapy department was first organized under the surgical service, but was later conducted as a separate service, an experienced officer to head this service being sent to the hospital.

Medical Service Organized

The medical service, which was practically the first service organized because of the influenza epidemic, was organized December 15, 1918. The medical service received in excess of fifty per cent of the total of 2,040 admissions to the hospital. Many of those received in the medical service from overseas were convalescent to such a point that only a short residence in the hospital was required. An average of approximately 240 patients remained daily on this service. The receiving officer, it might be mentioned in passing, functioned under the chief of medical service.

The first cases admitted to the hospital for treatment were suffering from influenza. This epidemic in the command was limited to approximately 150 cases. There were none critically ill and there were no deaths. Daily inspections

were made and strict isolation was maintained.

The first overseas patients were admitted in February, 1919, and numbered approximately fourteen. These were principally men convalescing from influenza, pneumonia, and war wounds.

The educational service was organized January 15, 1918, on the assigning of a chief of this service by the surgeon general's office. The chief of this department was also made morale officer as it was thought that these two services were closely related.

This vine-hung corridor in the old hospital building, has been put to many uses. During the construction of the main building, it was used first as a barracks, then as a store room, later as a ward, finally coming into the use for which it was originally intended.

In the scheme of rehabilitation of disabled soldiers and sailors returning from the front, this department of U. S. Army General Hospital No. 36 had a variety of services to perform. In order to function efficiently in the discharge of its duties, the educational work was apportioned among four divisions: (a) the pathological and statistical, (b) the technical, (c) the recreational, and (d) the general. The specific work of each division converged upon the control aim of the reconstruction purpose of the hospital as a whole, namely, the restoration of each person who was received to full mental and bodily vigor. The general aim was to restore the disabled men, physically and mentally. To make him as good a man physically, economically, and socially as he was before the injuries received in line of duty abbreviated his usefulness—that was the general purpose of this hospital.

The dental service was organized December 12, 1918, by the assignment to the hospital of a chief for that service. However, it was not until March 1, 1919, that this department was able to function as a service, as the rooms assigned to it were not fitted up until that date.

The quartermaster department was organized by a commissioned officer of the quartermaster corps. While the offices were in the main building, it was necessary to rent a warehouse some distance from the hospital in order to store certain supplies. This department, as is usual in all army organizations, had charge of the supply department of the hospital.

The utilities and motor transport corps were well organized and officers were in charge.

All of the departments were, as is usual, coordinated under the direction of the commanding officer in order to correlate their workings. This was done by daily conferences at headquarters where the heads of all departments met and talked over the difficulties which had arisen or were likely to arise.

On June 26 the commanding officer received a letter from the surgeon general of the army setting forth that "Instructions have this day been received that U. S. General Hospital No. 36 will be abandoned, and, in accordance with request of the surgeon general of the Public Health Service dated June 16, 1919, it will be transferred to the Treasury Department. All patients and personnel will be out of the building by August

1, 1919. When all the medical department personnel and patients have been disposed of, you are directed to turn this hospital, with all supplies and equipment required by the Public Health, over to a proper representative of that office." Thereupon steps were immediately taken to expedite the movement of all patients and the discharge of the enlisted personnel. Subsequent instructions were received, however, that this hospital was to be turned directly back to the authorities, so that the hospital never functioned as a Public Health hospital.

Thus arose, served, and passed into history U. S. Army General Hospital No. 36. It is appropriate to record acknowledgement of the efficient, loyal, and sacrificing services, for the most part, of the men and women who have constituted its personnel. Without the dominant war motive and without the hope of popular acclaim they exerted their best talents, actuated, in many instances, almost entirely from a sense of patriotic duty. Their chief reward must always remain an inward satisfaction in having rendered to the nation an important service in according medical and surgical service, and in creating educational opportunities for men worthy of every consideration which a grateful people could bestow.

HENRY FORD HOSPITAL IN TIME OF PEACE

By D. D. MARTIN, Detroit, Mich.

Service to the patient is the one ideal to which everything has been subjected in this great hotel for sick people. Its radical departure from conventional types of architecture, the drastic methods of administration, and the development of new appliances make it of unusual interest. The new methods are not theories or experiments, but are all proved processes which were worked out in a model hospital conducted for two years. A hospital without a ward and with a private bath for every bed sounds like a dream, as does the fact that no provision is made for resident physicians, a nurses' home, or a dormitory for student nurses. These and other novel ideas are well carried out.

PRESSED into service by the war department while still incomplete, and but lately turned back to its owner, the Henry Ford Hospital, Detroit, Mich., will soon enter the list of America's greatest houses of mercy. It might be expected that any venture on which Ford men embarked would, when completed, bear unmistakable marks of the influence of the great organization of which they are a part, and certainly such expectations are justified in the case of this hospital. The radical departure from conventional types of hospital architecture, the drastic changes in methods of administration, and the development of new appliances, all mark this institution as a Ford venture, conceived with the typical breadth of wisdom and executed with the splendid daring which is characteristic of Ford projects.

Right here, however, it may be well to say that the new methods which the Henry Ford Hospital will introduce are neither theories nor experiments. They are proved processes, worked out in detail in the model hospital which the heads of the present staff conducted for two years before even the first excavating was done for the present structure. During this period of preparation members of the staff visited the leading hospitals of the country, adopting those ideas which seemed good, rejecting those which could not be applied. Their small hospital was their laboratory. Here they worked out in detail every theory and every practice, and tried out each new appliance. Here too they developed in miniature the administrative system which is to make the Henry Ford Hospital a "hotel for sick people."

One of the principal results of this period of research and experimentation was the decision to build no wards in the new institution. Once the decision was made, attention was centered on the problem of a model room. Great attention was given to details, for details here were of supreme importance, and the staff believes that they have succeeded in working out a hospital room which for comfort, convenience, and utility is without an equal. Double doors which operate noiselessly and which open wide enough to admit the passage of a bed have been installed. A silent signal system which automatically records the time elapsing between the call of the patient and the reply of the nurse has been developed. The patients can be moved from their rooms to any part of the hospital without leaving their beds. A special type of rolling gear which can be driven noiselessly by electric power is being evolved. The rooms are built in pairs with a service shaft between. This shaft,

which is accessible through steel doors, contains lighting, heating, plumbing, and ventilating connections. A private telephone is installed in each room. These lines pass through a switchboard at the nurses' station in the service section of the unit so that calls reach the rooms only if the patients' condition makes it permissible. Much attention has been given to the subject of decoration in rooms and baths with the result that a note of color has been introduced which is far more pleasing and restful than the monotonous hospital white.

Private baths for every bed in a hospital are, of course, something of an innovation, but the experience of the Ford organization has shown them to be a very practical addition. It has been found that a nurse will frequently walk as much as eight miles in a thirty-foot corridor during her tour of duty. This not only means noise and confusion in the corridors, but it means loss of time in caring for patients, loss of energy to the nurse, and loss of efficiency to the hospital. One of the features of the bathroom is a special form of toilet bowl, designed to receive an inverted bedpan and to flush this utensil thoroughly with hot water. All metal fixtures in the bathroom are of German silver. The walls and floors are tiled. Temperature in the bedrooms and baths is controlled by an automatic device which may be adjusted as desired.

"Service to the patient"—that is the ideal which is the dominating thought. The private room with its bath and its many refinements is only one of the manifestations. To this ideal everything has been subjected. The great 700-foot building has been built about it; the administrative features were originated for the purpose of promoting it; it is the one supreme goal of the organization, and no doctrine, no theory, no tradition has been too sacred or to venerable to uproot if it did not promote this object.

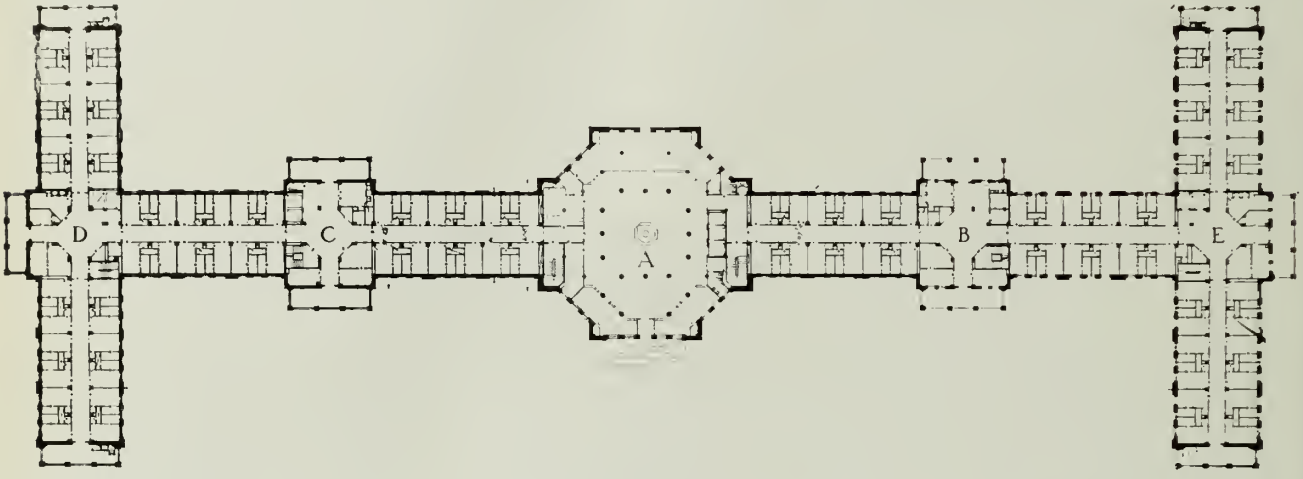
The plans of the hospital, it will be noted, show no provisions for resident physicians, for a nurses' home, or for a dormitory for student nurses in the training school. It is the belief of the Ford organization that after spending eight hours at a hospital, doctors and nurses owe it to themselves and to their patients to get entirely away from the scene of their work. This plan was followed in the first Henry Ford Hospital and experience demonstrated its value so fully that there was never any doubt as to whether it would be adopted in the new institution.

Exterior view of the Henry Ford Hospital, Detroit, Mich., taken while it was occupied by the United States Army as Army General Hospital No. 36.

The first problem involved in giving the patient efficient service is the elimination of delay. Here the aid of mechanical devices and of modern office systems have been enlisted to a greater degree than heretofore. In this feature of its work the institution is without a doubt a pioneer. To detail this system in its entirety would require too much space, and since the general plan of the building is yet to be explained it seems best to take up the two together.

The Henry Ford Hospital was designed wholly

by the Ford organization. It stands on a twenty-acre area at Hamilton and West Grand Boulevards, Detroit. Around the building stretches a vast expanse of lawn in which nature trees, some of them forty feet in height, are being transplanted. The entrance faces West Grand Boulevard, the pretentious driveway which once marked the limits of the community's growth but which today is a belt across the center of the city.



The general plan of all the floors except those in the diagnostic building is that of an elongated letter "H." The administration building, which forms the center, is octagonal in shape.

Situated well back from the street, the main building is displayed to excellent advantage. The structure is 700 feet long and four stories high, except for a hexagonal section in the center which measures six stories. Reaching out from this central section are two of the four units of the hospital proper, and across the end of each of these is another similar unit. Any one of these units, while physically a part of the whole, can be shut off completely in the case of necessity and still continue to operate as efficiently as before. There are twenty-four rooms on each of the four floors of a unit, 96 beds in a unit, and 384 beds in the hospital.

Building Original in Type

No academic style of architecture has been followed. The building is entirely original in its conception, lacking that institutional air which often stamps so huge a structure with a cold and forbidding appearance. Impervious red pressed brick and Indiana limestone have been used effectively by the builders. Raked out joints break the effect of solid color in the walls and this is assisted by cream-colored panels bearing the emblem of the red cross, which run below the windows of the third and fourth stories, and by a band of red and green in Florentine brick work below the windows of the second story.

Each unit has a solarium and in addition to these there are forty spacious porches, or enough to accommodate every patient of the institution. The entire roof of the building is tiled and, since it is reached by elevators, can be used for any purpose desirable.

The hexagonal structure building is known as the diagnostic building. This is the nerve center of the institution. On the first two floors are quartered the administrative and executive offices containing public reception rooms, the division of records, telephone and telegraph stations, and general business offices. On the fourth floors above are the offices of the large staff of doctors together with their examining, consultation, and lecture rooms. The basement of the diagnostic building will be occupied by the x-ray section.

High Standard of Efficiency

Readers of this magazine are probably well acquainted with the fact that the Henry Ford Hospital is a closed institution. This plan was tried out thoroughly and has been adopted as a settled policy. Naturally this implies all that such a policy means, as reflected in the best hospitals of this class. The Ford organization, however, has felt that this institution would be a failure if it did not go farther than this. The work of the staff, therefore, will be directed fully as much towards preventive medicine as toward corrective surgery and, in the effort to be of the utmost service, the best office practice of the business world have been coordinated to a remarkable degree with the science of medicine. Putting aside medical terminology, the intention is to turn over the capacity of the hospital as often as possible. In other words, the organization will seek, by the introduction of a skilled staff of administrative lay workers, by the creation of a highly trained force in the division of records, and by the cen-

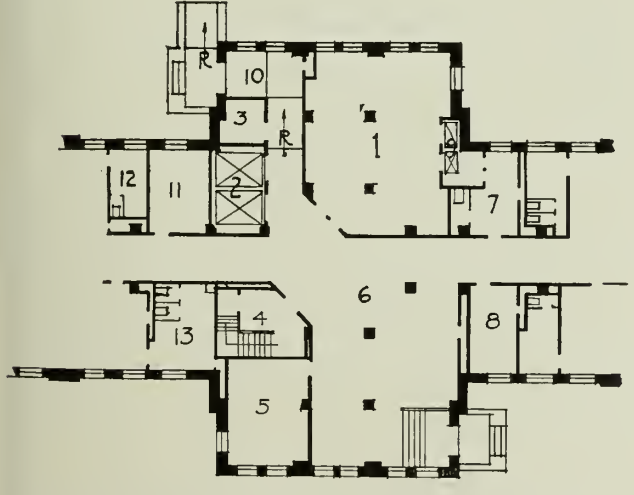
tralization of every facility for diagnosis and treatment at the fingertips of the physicians, to shorten the time which a patient ordinarily spends in the hospital so that the maximum number of patients will be able to use the beds in the course of a year. This may, perhaps, sound formidable but in reality it is nothing of the sort. There is no reason for believing that hospitals cannot increase production, when organized with attention to business principles. As has been said before, the organization which is to make this possible has been worked out, the actual experiments have been made, the definite results are known, and the model hospital in which the experiment was made gained a national reputation for accurate diagnosis, for skillful surgery, and for efficient service to patients. This is, we are told, one of the "revolutionary" features of the Henry Ford Hospital. From our standpoint, however, "evolution" seems the more appropriate term. The experience of the Ford organization has shown, beyond the question of a doubt, that all hospitals must eventually come to this basis of operation if they are to meet the needs of their community and to serve it to the fullest extent.

Each private room in the Henry Ford Hospital, has a bathroom in connection, similar to the one of which a corner is shown here.

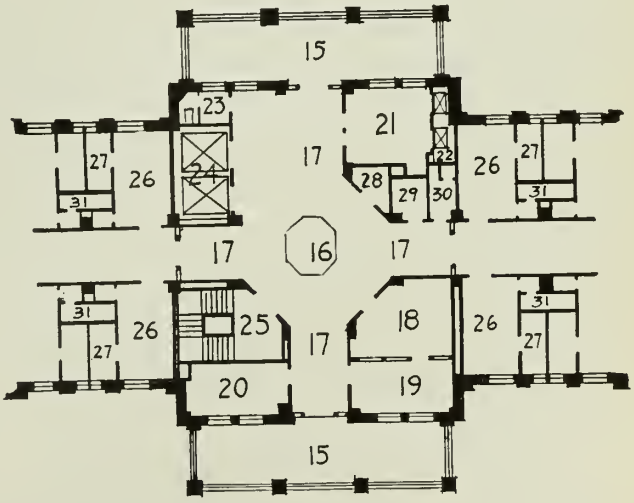
Complete System of Communication

The division of records, located in the diagnostic building, is one of the most important branches of the institution. No records will be kept in any other section of the building, and all filing is done in this office. A complete system of interdepartmental communication has been arranged which for completeness and rapidity of service cannot be excelled. Telephones, pneumatic tubes, and dictaphones are used. A doctor upon completing his diagnosis and dismissing his patient may pick up the transmitter of a dictaphone and dictate his record to a stenographer who has received special training in transcribing medical terminology and who is several floors below. Should a doctor desire a report on a previous diagnosis, or on the history of a certain type of case, he requests it by telephone and it arrives a moment later through the pneumatic tubes. All medical terminology has been reduced to a system of numerals and decimals which permits of a simple system of cross indexing, making it possible for lay workers to compile reports and records with astonishing rapidity and with absolute accuracy.

All requests for drugs, linens, or supplies of any kind are transmitted to the administrative offices and thence to the proper departments. There need be no delay, no waiting. A nurse can telephone from a patient's room for a glass of milk, walk to the serving kitchen off the service section of the corridor, and be sure of finding it waiting for her on the automatic elevator.



The ground floor plan of the Henry Ford Hospital showing the location of: (1) the kitchen; (2) elevators; (3) storage; (4) stair hall; (5) office; (6) corridor; (7) janitor's closet; (8) linen closet; (9) dumb waiter; (10) grade entry; (11) elevator and machine room; (12) men's toilet; (13) nurses' locker room toilet; (14) ramp.



In this diagram of the floor plan of the Henry Ford Hospital, the completeness of the detail and the convenience of arrangement are graphically disclosed. This typical floor plan shows: (15) porches; (16) nurses' station in corridor; (17) corridor; (18) utility room; (19) dressing room; (20) office; (21) diet kitchen; (22) dumb waiter; (23) public toilet; (24) elevators; (25) stair hall; (26) private rooms; (27) private toilets; (28) chart room; (29) linen closet; (30) linen chute; (31) pipe shaft.

In noting the floor plans of the hospital special attention should be given to the service sections. There is one of these sections in the center of each floor. Each is shut away from the corridors off which the patients' rooms open by sound-proof and fire-proof doors. Here have been placed the elevators, serving kitchen, chart room, linen closets, utility and dressing rooms, with a complete equipment of sterilizers and blanket warmers and an office for the doctor in charge. In the center of the section is a nurse's station with telephones and pneumatic tubes connecting it with the diagnostic building. Calls from patients' rooms are flashed upon a signal board at this station where requests for supplies are handled.

Note the ornamental detail of the brick and stone work. These walls are not simply of utilitarian value, but delight the artistic sense as well.

Every effort has been made to design and organize the service section in such a manner that sounds incidental to its operations will never reach the ears of the patients. Every apparatus or machine is as silent as it can be made. Doors close silently, without so much as the click of a latch, signals are seen but not heard, elevators come and go soundlessly, and even the typewriters are of noiseless type.

Plans Perfected in First Hospital

Back of the main hospital building are the older buildings of the first Henry Ford Hospital in which the staff perfected the plans that have been carried out in magnified detail in the new structure. Here there is a private patient's building of seventy rooms, a laboratory building, service building, power house, and the wonderful surgical pavilion. All of these structures are connected by sunken corridors which are well ventilated, lighted, and heated.

The laboratory building is as complete as modern scientific equipment can make it. The service building contains the kitchens, laundry, stock room, and present offices of the organization. The power house, which is being enlarged, supplies all buildings with heat and with electric current for cooking, lighting, and elevator service. The surgical pavilion of the hospital is unique in many respects and contains what the leading surgeons of the country have declared to be the finest operating rooms that were ever constructed.

"Helping the Other Fellow"

In concluding this article, in which it has been possible to sketch the plan of the new hospital and the features of its administration in only the broadest way, it should be said that while the hospital will hold no free clinics and will make uniform charges for services to every patient, there is no intention of operating for profit. This institution is a material manifestation of Henry Ford's dearest ideal, "Help the Other Fellow." And while personal identity may be submerged for the upbuilding of the organization there is never a lack of that sympathetic understanding humanity craves in its hour of sickness and trial.

THE PURPOSE AND METHODS OF AIR CONTROL IN HOSPITALS *

By ELLSWORTH HUNTINGTON, Ph.D., Research Associate in Geography, Yale University, New Haven, Conn.

PART I. THE IDEAL CONDITIONS OF THE AIR

Five atmospheric conditions, temperature, humidity, purity, movement, and variability ought to be considered in all systems of ventilation and heating.

Present methods of ventilation have not produced widespread benefits, due to failure to appreciate the importance of the right kind of air, and to imperfect knowledge of what ideal conditions really are.

Recent statistics prove: (1) that 10° of temperature may make a 10 to 27 per cent difference in the death rate; (2) that an increase in the death rate accompanies decrease in relative humidity; (3) that variability in temperature influences the death rate.

THE effect of the air on health is constantly receiving fuller recognition. Seemingly insignificant variations in temperature and humidity are now found to have an extraordinary effect on health in all parts of the world. The day seems approaching when everyone will recognize the truth of the statement of Fisher and Fisk that "Air is the first necessity of life." Such recognition ought to produce widespread benefits, for the evils which arise from unfavorable atmospheric conditions can easily be remedied in hospitals, and can be largely ameliorated in houses, schools, offices, factories, and public buildings. The two greatest hindrances are: first, a failure to appreciate the vital importance of the right kind of air; and second, imperfect knowledge of what the ideal conditions actually are. The purpose of this article is to sum up the evidence as to the ideal and as to the harm done by departure from it, and then to point out how the ideal may be attained, and at what cost.

The most important atmospheric conditions are: (1) temperature, (2) humidity, (3) purity, (4) movement, and (5) variability. These are arranged in the order in which they are usually considered in systems of ventilation and heating. In most such systems over 95 per cent of the attention is concentrated on producing an ideal temperature; yet, even so, we still suffer from too much heat. The importance of humidity is also widely recognized; most furnaces contain a water pan, and a dish of water sits on many a radiator. Neverthless, the recognition is largely perfunctory and utterly inadequate. Relatively speaking, the conditions of humidity are as bad as those of temperature would be if we let our living rooms range anywhere from 50° to 80°. This is largely because the effects of atmospheric humidity are commonly confused with those of temperature and dampness.

Turning to the purity of the air, we are confronted by quite a different situation. In the first place, whatever may be the common practice, there is universal agreement as to both the value and character of pure air. In the second place, nature when left to herself promptly creates ideal conditions of purity, unless the climate is so dry that the air is contaminated by dust. Hence our problem is the simple one of helping nature by cleaning out the dust and taking out the impurities for which we ourselves are responsible.

Movement and Variability

The two remaining conditions, movement and variability, are so intimately connected that they may well be considered together. In order to secure purity, a few of the best managed hospitals and public buildings pay some attention to the movement of the air, but even this is rare. In fact, most people think that movement of the air means drafts and colds. As to variability the condition is still worse. Not only is there no attempt to obtain the right kind of variations of temperature, but every effort is made to avoid any variations whatever. Yet the movement, and especially the variability of the air, appear to be among the chief causes why outdoor life is so much better than indoor. Time and again the experiment has been tried, although it has been ostensibly for the purpose of giving patients "fresh" air rather than variety. Keep a patient indoors with a uniform temperature of 68° and with an abundant supply of air which is absolutely fresh and pure, but which has no perceptible movement. Put the same patient out of

*First installment of an article appearing in two parts, by Ellsworth Huntington, Ph.D., Research Associate in Geography, Yale University, New Haven, Conn. The second installment will appear in the May issue, under the title, "Methods of Air Control and Their Results."

doors in a temperature ranging from 60° in the morning to 70° at noon. Let him enjoy the fresh air as it sweeps gently across his face; let him feel the sudden little drop of temperature when a cloud obscures the sky, or when a pleasant breeze blows briskly for a minute. For hour after hour let him experience the tingle of strengthened circulation that comes with the constant movement and variation of the outside air. Every one knows that the patient who is alternately soothed and stimulated in this way has a much better chance of recovery than the one who feels the same fresh air, is warmed by the same sun, and looks upon the same scene behind a barrier of windows that prevent perceptible movement or variation. Slight as is the difference between the outdoor and indoor air, its effect is almost magical. The difference lies in the degree of movement, and especially of variability, for such variability is a universal quality of outdoor air in all good climates.

Let us now define the ideal conditions toward which our efforts should be directed. We shall omit purity, on the assumption that it is so well understood that further discussion is unnecessary. Movement and variability will be considered together, with chief emphasis on variability, since that is the condition least understood.

The Ideal Temperature

The evidence as to the ideal temperature is abundant. Every one knows that 70° is as high as the temperature should ever go in ordinary living rooms. Nevertheless, overheating is well-nigh universal. Out of 508 thermometer readings reported by Palmer* in a government office in Washington, only 14 per cent were within the desirable temperature range of 65°-70°, while 44 per cent were over 74°. In five theaters in New York the temperature ranged from 70° to 80°, and in only one did it fail to rise above 72°. According to the New York State Commission on Ventilation, such temperatures produce a slight fever in the sense of a detectible rise of body temperature. The Commission found, for example, that when sedentary persons are kept from morning till late afternoon in temperatures of 68° and 75°, respectively, the warmer room by the end of the afternoon induces an added strain of twenty-three pulse beats per minute. Yet even this is unsuccessful in preventing a rise of body temperature equivalent to 1.5° above what would have prevailed in a temperature of 68°. Part of this unfavorable result was probably due to extremely low humidity, but even so, the effect of temperature alone is extraordinary.

Other studies point equally clearly in the same direction. The following table shows the average temperature at which the best work was done or the fewest deaths occurred in a number of widely scattered instances.*

TABLE 1.

Effect of Temperature on Health and Strength.*
Effect of Difference of 10° F. on Death Rate

	No. Cases	Criteria	Best temp.	
(1)	781,000	Deaths, north Italy, 1899-1913	58°	21%
(2)	300	Piece work, men, 2 Conn. factories, 1910-13	59°	....
(3)	200	Piece work, girls, 1 Conn. factories, 1911-13	60°	....
(4)	8,000	Deaths, British Columbia, 1914-16..	62°	25%
(5)	122,000	Deaths, Southeastern U. S., 1900-12	62°	10%
(6)	9,000	Piece work, Pittsburgh, 1910-13...	63°	....
(7)	752,000	Deaths, Southern Italy, 1899-1913..	63°	27%
(8)	380	Cigar makers, Cubans, Tampa, Fla. 1913A	64°	....
(9)	838,000	Deaths, Southern France, 1901-10..	64°	17%
(10)	2,500,000	Deaths, Northeastern U. S., 1900-12	64°	15%
(11)	921,000	Deaths, Whites, Eastern U. S., 1912-15	64°	12%
(12)	71,000	Deaths, Dry Interior of U. S., 1900-12	64°	15%
(13)	1,315,000	Deaths, Northern France, 1901-10..	65°	17%
(14)	739,000	Deaths, East Central U. S., 1900-12	65°	18%
(15)	400	Cigar makers, Cubans, Tampa, Fla. 1913B	65°	....
(16)	167,000	Deaths, Negroes, Eastern U. S., 1912-15	68°	12%
(17)	380	Cigar makers, Cubans, Tampa, Fla. 1912	68°	....
(18)	142,000	Deaths, California, 1900-12	70°	18%

In this table, twelve of the eighteen examples show that the best conditions of health and energy prevail when the temperature averages from 62° to 65°. These twelve embrace six of the seven examples where the number of cases is over 500,000, and if it were not for accidental circumstances, such as epidemics, Northern Italy would fall in the same group. Among the three cases where the optimum or best conditions appear to be above 65°, two pertain to people from hot countries, while in California the relative frequency of breezes during the months averaging about 70° gives such temperature an advantage. In general, the table seems to leave little room for doubt that for physical health the best average temperature for day and night is about 64° F. With such an average, the thermometer is ordinarily not far from 70° at noon and perhaps 58° in the morning. Temperatures much above 70° rarely prevail for any length of time, and throughout most of the day 60° to 70° is the rule. This agrees with all the other evidence in showing that in our hospitals a temperature of 64° to 68° is high enough by day, while by night the air should be cooler. If the air is properly humidified, such conditions will rarely feel cool. The problem of securing them presents no difficulties and merely demands a little care. If people could only be made to realize that the difference between 67° and 72°, for example, often means a difference of 5 per cent in the death rate, they would think it worth while to take pains. The remarkable effect of a few degrees of temperature appears in the right-hand column of Table 1. Since a difference of only

*George T. Palmer: Role of Ventilation in Preventive Medicine, Vol. 1, 1919, pp. 509-515.

*The data in this table compiled from two volumes entitled "Civilization and Climate," Yale University Press, 1915, and "World Power and Evolution," Yale University Press, 1919, by Ellsworth Huntington.

10 degrees in temperature may make a difference of from 10 to 27 per cent in the death rate, it is impossible to take too much pains with the temperature of our hospitals.

Although the evidence as to humidity is not so abundant as in respect to temperature, it is scarcely less convincing. Since the effect of humidity varies according to temperature, we must carefully distinguish between temperatures above and below the optimum of 64°.

At the optimum temperature in every one of the groups of deaths listed in Table 1, the best conditions of health prevail when the humidity averages 70 per cent or more. With higher humidity no special harm seems to follow at this temperature, while at lower humidities there is universally an increase in the death rate, ranging from 5 to 15 per cent, according to the degree of dryness.

At still lower temperatures the effect of humidity is even greater, as appears in Table 2, which shows the approximate effect of a difference of 10 per cent in humidity under various conditions of temperature.

TABLE 2.*

Effect of Humidity on the Deathrate.

A. Increase in the Deathrate Accompanying a Decrease of 10 Per Cent in Relative Humidity at a Temperature of 40° F.

(1)	Northeastern United States 1900-1912	+ 0.8 Per cent
(2)	East Central United States 1900-1912	+ 1.3 Per cent
(3)	Dry Interior of the United States 1900-1912	+ 2.0 Per cent
(4)	Boston (Death after operations) 1906-1915	+ 3.1 Per cent
(5)	Large cities of U. S. (Whites, non-cont. dis.), 1912-1915	+ 3.3 Per cent
(6)	Large cities of U. S. (Negroes, non-cont. dis.), 1912-1915	+ 4.0 Per cent
(7)	British Columbia 1914-1916	+ 7.0 Per cent
(8)	Large cities of U. S. (Whites, contag. dis.), 1912-1915	+ 9.5 Per cent
(9)	Southern France, 1901-1910	+10.0 Per cent
(10)	Northern France, 1901-1910	+11.0 Per cent
(11)	Northern Italy, 1899-1913	+12.5 Per cent

B. Increase in the Deathrate Accompanying a Decrease of 10 Per Cent in Relation Humidity (at all temperatures) Dec.-March, 1900-1914.

(12)	St. Louis	+ 0.6 Per cent
(11)	Northern Italy, 1899-1913	+12.5 Per cent
(12)	St. Louis	+ 0.5 Per cent
(13)	New York City	+ 1.2 Per cent
(14)	San Francisco	+ 3.8 Per cent
(15)	Baltimore	+ 5.0 Per cent
(16)	Chicago	+ 7.8 Per cent

C. Increase in Daily Deathrate Accompanying a Decrease of 10 Per Cent in Relative Humidity (at all temperatures) during the Influenza Epidemic in New York City (Sept.-Dec., 1918) and Boston (Oct., 1918-April, 1919).

NOTE: The figures here indicate percentages of the average daily change in the deathrate instead of percentages of the actual deaths. Hence the figures are perhaps five times larger than if they were reckoned as in A. and B.

(17)	Onset of Influenza, Boston	+ 3.0 Per cent
(18)	Onset of Influenza, New York	+ 6.9 Per cent
(19)	Deaths from Influenza, Boston	+11.3 Per cent
(20)	Deaths from Pneumonia, New York	+21.6 Per cent
(21)	Deaths from Influenza, New York	+26.2 Per cent
(22)	Deaths from Pneumonia, Boston	— 8.3 Per cent
(23)	Onset of Pneumonia, Boston	— 1.8 Per cent

Table 2 represents all the available data except those of Greenberg, and certain others to be given shortly, all of which point in the same direction. In 21 out of the 23 sets of data, the moister days have an advantage over the drier. Even the smallest figures, such as 0.8 per cent for the northeastern United States, are significant, for the houses in that section are so over-warmed that when the temperature outside averages 40° the relative humidity inside averages only a little over 30 per cent. If this were raised to 70 per cent it would multiply the figures in Table 2 by four. The negative figures for Boston, Nos. 22 and 23, appear to be accidental. Taking Table 2 as a whole, it seems quite clear that an increase of 10 per cent in humidity at low temperatures is correlated with an average decrease of 3 to 5 per cent in the death rate.

Let us next see how a given quantity of water in the air influences the death rate at various temperatures. A cubic foot of air, it will be remembered, can hold approximately two grains of water vapor per cubic foot at 20° F., and about eight at 70°. On the basis of the deaths from lobar pneumonia in New York City from April, 1917, to March, 1918, an additional grain of moisture per cubic foot of air would have diminished the death rate as shown in Table 3.

TABLE 3.

Effect of One Grain of Water per Cubic Foot of Air in Diminishing the Deathrate from Lobar Pneumonia in New York

A. Mean Temperature	B. Actual decrease in daily deaths for one additional grain of water per cubic foot.	C. Percentage decrease in daily deaths.
20° or less	10.5	39.6 Per cent
21-32°	1.3	4.9 Per cent
33-55°	1.1	4.0 Per cent
46-55°	2.3	11.1 Per cent
56-65°	2.7	15.5 Per cent
66-70°	1.2	12.8 Per cent
71-75°	0.2	3.2 Per cent
76° or more	0.004	0.06 Per cent

Another set of figures of the same kind is given in Table 4. These apply to deaths after operations in Boston hospitals.

TABLE 4.

Effect of One Grain of Water Per Cubic Foot of Air in Diminishing the Deathrate After Operations in Boston, 1906-1915.

A. Mean Temperature	B. Percentage decrease in deaths for one additional grain of water per cubic foot.
30° or less	9.2 Per cent
31-40°	16.5 Per cent
41-50°	8.8 Per cent
51-60°	13.7 Per cent
61-70°	4.6 Per cent

Tables 3 and 4, together, seem to show that except at high temperatures, an increase of water vapor in the air is decidedly beneficial. On the whole, the greatest benefit seems to accrue when the outside temperature is about 60° F., but further data are needed before there can be any certainty on this point. At high temperatures, however, the effect of humidity is not at all the same as at low, as appears in Table 5.

TABLE 5.

Daily Deaths in Boston Hospitals after Operations Performed when the Temperature was above 70° at 8 A. M.

Relative humidity	under 40 per cent	0.937	deaths per day
" "	41-50 per cent	0.489	" " "
" "	51-60 per cent	0.244	" " "
" "	61-70 per cent	0.280	" " "
" "	71-80 per cent	0.347	" " "
" "	81-90 per cent	0.500	" " "
" "	91-100 per cent	0.775	" " "

In Table 5 notice how systematically the death rate diminishes with rising humidity up to 51-60

*These tables are based on data given in the two volumes mentioned above and in the following articles:

"The Interpretation of the Deathrate by Climographs": Modern Medicine, Vol. 1, 1919, pp. 13-22.

"Air Control and the Reduction of the Deathrate after Operations": Modern Medicine, Vol. 1, 1919, pp. 463-468 and 555-558.

"The Control of Influenza and Pneumonia by the Weather": to appear in the first number of a new magazine entitled Ecology, published by Ecological Society of America.

per cent, and then increases once more. It would be hard to find stronger evidence of the extreme sensitiveness of the human body to variations in humidity. If hospitals were so equipped that they could have any desired degree of humidity at all seasons, the saving in health would be great.

The Ideal Variability

The effect of variations of temperature is closely correlated with the effect of movement of the air. Both are favorable, but just how much benefit arises from one and how much from the other is not yet certain. One of the most striking experiments along this line was carried on by the New York State Committee on Ventilation. The committee tested several thousand children, part of whom were in school-rooms where the temperature was kept uniformly at 68° by a supposedly ideal system of fan ventilation, while the rest were in rooms where the temperature averaged the same, but where it varied much more, because the windows were frequently opened to give outside ventilation. In the rooms with the supposedly ideal ventilation, the absences on account of respiratory diseases were 30 per cent more than in those with the variable temperature due to window ventilation. Among the pupils actually in attendance the cases of respiratory diseases were 236 per cent more numerous in the rooms with the monotonous invariable temperature than in those with the variable temperature.

Equally striking are the results of a study of daily changes in the death rate during a period of eight years in New York City, with 400,000 deaths as a basis. On days when the temperature dropped, no matter what the season, there was a marked decrease in the death rate, while on days when it rose there was an increase. The good effects of a fall, however, were not balanced by the bad effects of a rise. If we take the hundred days with the greatest drop and the one hundred with the greatest rise, as appears in Table 6, we find that these two sets of days combined had the following advantage over days when there was little or no change in temperature.

TABLE 6.

Effect of Variability on 400,000 Deaths in New York, 1877-1884.

Autumn	+1.6 Per cent
Winter	—0.5 Per cent
Spring	+0.4 Per cent
Summer	+3.2 Per cent

In winter it will be seen that the variable days did not have an advantage over others, since they were too extreme. If, however, we could eliminate not only the great dryness which almost invariably accompanies a drop in temperature, but the overheating, which with equal constancy accompanies a rise of temperature, we should doubtless find that at all seasons the advantage of the variable weather would be as great as in summer. How this works in certain individual ailments may be judged from the following figures. For example, Table 7 shows that after operations performed in Boston hospitals during December, January, and February, the death rate was 4 per cent greater in variable weather than at times with the least change during the winter. At that season, just as in the preceding case, the good effect of variability is overcome by extreme dryness and by overheating. On the other hand, from March to November the days with a strong change of temperature in either direction have an advantage of 40 per cent over those when the change is less than 3° in either direction.

TABLE 7.

Deaths Per Day in Boston Hospitals Under Different Conditions of Variability

	Change of 9° or more in either direction	Change of 4°-8° in either direction	Change of less than 3° in either direction
Dec.-Feb.	0.340	0.336	0.326
Mar.-Nov.	0.245	0.288	0.343

A similar case is found in the studies of pneumonia and influenza already mentioned. The change in the death rate from day to day on days with great variability and with slight variability of temperature appears in Table 8. Here, however, in Section 1, the variable days show an advantage even in winter.

TABLE 8.

Advantage of Days Having a Strong Change of Temperature in Either Direction Over Those Having Little or No Change.*

Section 1. Normal Condition.

(1)	Lobar pneumonia, New York (Apr.-Sept.)	1.9
(2)	Lobar pneumonia, New York (Oct.-March)	2.2
(3)	Broncho pneumonia, New York (Apr.-Sept.)	1.3
(4)	Broncho pneumonia, New York (Oct.-March)	0.7

Section 2. Epidemic Conditions

(5)	Onset of Influenza, New York City, (Sept.-Dec.)	11.0 Per cent
(6)	Deaths from Influenza, New York City, (Sept.-Dec.)	11.1 Per cent
(7)	Deaths from Influenza, New York City, (Sept.-Dec.)	— 2.1 Per cent
(8)	Onset of Influenza, Boston, (Oct. 1918-April, 1919)	12.3 Per cent
(9)	Deaths from Influenza, Boston, (Oct. 1918-April, 1919)	16.3 Per cent
(10)	Onset of Pneumonia, Boston, Oct. 1918-April, 1919)	— 7.3 Per cent
(11)	Deaths from Pneumonia, Boston, (Oct. 1918-April, 1919)	— 6.6 Per cent

In Section 2 it appears that even during the abnormal epidemic period of 1918 patients suffering from the two types of pneumonia and from influenza were generally benefited by variations of temperature, in spite of the fact that Nos. 7, 10, and 11 depart from this rule. Apparently, if variations could be secured without at the same time causing either chills, undue dryness, or unduly high temperature, variability would always be healthful.

Under normal circumstances, the benefit derived from variability appears to range all the way from nothing up to 40 per cent. This, be it remembered, is the effect of single days, which

*In Table 8, Nos. 1-4 show the actual amounts by which the net changes in the deathrate on days with great variability of weather were more favorable than the changes on days of uniform weather. In Nos. 5-11 similar data are given in percentages of the normal change from day to day, and are thus on a scale about 5 times that of Nos. 1-4.

are usually separated by other less favorable days. Moreover, this is the residual effect in spite of all the influences of temperature and humidity which usually act in a contrary direction. What the true average is when allowances are made for these other factors no one can tell, but it would not be surprising if variability alone influenced the death rate by 5 or even 10 per cent. If this is so, it ranks with tuberculosis as one of the greatest single factors in determining the health of the community, and should receive corresponding attention. Its proper understanding may prove one of the important steps toward stamping out tuberculosis itself.

For the sake of argument, let us suppose that proper temperature would reduce the death rate 5 per cent, proper humidity another 5 per cent, purity 2 per cent, and proper movement and variability 3 per cent. In view of the tables here given, these figures seem conservative. Yet they mean that proper air control might theoretically cut more than two hundred thousand from the death roll of the United States each year. But suppose only a tenth of this figure is attainable. Is it worth while? At the low valuation of $5,000 per life, 20,000 lives make a total needless death tax of $100,000,000 per year. Surely it will pay to learn the art of controlling the air.

THE TRAINING OF HOSPITAL SUPERINTENDENTS

By S. S. GOLDWATER, M.D., Superintendent, Mount Sinai Hospital, New York City

THE technical knowledge which a hospital superintendent is in a position to use to advantage embraces the following principal subjects: medicine in all its branches, sanitation, hygiene, vital statistics, the theory and practice of nursing, sociology, law in its application to hospitals, hospital planning, building construction, heating, illumination, ventilation, domestic science, accounting, and the science of business. To find a man that has been trained in all of these branches is a task so difficult that, as a rule, the trustees of a hospital in search of a superintendent, make no attempt to measure candidates by any rigid test of technical knowledge, but are content to discover a candidate possessing an attractive personality, executive ability, and some hospital experience.

The functions of the hospital superintendent are commonly defined in some such terms as the following: the superintendent is the executive officer of the board of trustees, and is responsible to the board for the enforcement of its rules and orders; he is entrusted with the superintendence of all the activities of the hospital except those pertaining to diagnosis and treatment. Specifically, the superintendent is usually directed to make regular inspections of the various departments, to control the admission and discharge of patients, to engage, dismiss and fix the wages of minor employees, to see that laws and ordinances applicable to the administration of the hospital are duly observed, to record receipts and expenditures, to purchase necessary supplies, and periodically to present a report of progress to the board of trustees. These things the superintendent is specifically instructed to do. In addition, the trustees look to him to assist in the planning of new buildings, to see that the equipment of the hospital is renewed as often as may be necessary, to see that patients are satisfied, to cultivate the good will of the public, to keep peace among the factious groups that so frequently spring up within the organization, to check the exuberant spirit of interns, and to persuade mechanics, office workers, and domestic servants to work for the hospital for half or two-thirds of the wages prevailing in industry and in private domestic service, respectively.

I have thus far attempted to summarize (a) the technical knowledge that the hospital superintendent can use to greatest advantage, (b) the personal qualities which more than anything else influence trustees in the selection of superintendents, (c) the duties which custom formally assigns to them, (d) the additional things that superintendents must do and do well in order to score a success. I shall now refer to an aspect of the question which, in my opinion, is of paramount importance.

What the hospitals *ask for* is a superintendent who will see that the policies of the trustees are carried out, that established rules and regulations are enforced; what the hospitals *need* is an executive capable of initiating measures to fit the hospital's program accurately to the needs of the community, of planning the interior organization of the hospital so as to make the institution 100 per cent effective in the care of the sick, in the training of doctors and nurses, in the advancement of medicine, and as a means to these ends, in maintaining the health and spirits of the whole body of hospital workers.

Hospitals have need of leaders who have mastered the theory of hospital administration,

which unfortunately still lacks definition, and who possess the ability to formulate a program and to see it through. To carry out the policy of the average board of trustees is not enough. Without ungraciously or ungratefully belittling the fine public spirit or the extraordinary generosity of hospital trustees, one may in all candor state the fact that trustees usually take their places on hospital boards knowing comparatively little of the medical needs of the community, of the state and the requirements of medical education and practice, of the significance of the infinitely varied forms that organized medical effort may take, of the relative merits of different types of hospital organization. Here and there trustees are encountered who, having devoted themselves to the service of hospitals for many years, have become well informed concerning current hospital practice, and relatively efficient in routine hospital administration; experts in the strict sense of the term they would hardly claim to be. It is true that in many cases the medical staff, or some influential member of it, is responsible for shaping the hospital's program and policy. But few clinicians have the time, the inclination or the capacity to acquire a well-rounded view of the complex problems of which medical administrators are gradually becoming aware. Is it surprising, under these circumstances, that there is neither rhyme nor reason in the way in which the hospitals in any large American city are created, distributed, coordinated, supported, or related to medical research, medical education, or the needs of the community? Few communities have made any systematic study of their hospital requirements. Rarely does it occur to public officials or to a board to institute a searching inquiry into the fundamental questions which lie at the root of hospital planning, organization, and management. Let me cite a few of these questions:

Hospital location, with relation to the needs and convenience of the population.

The size of hospitals in relation to economy of construction and administration.

The size of individual departments, or units of construction, in relation to economy and efficiency of administration.

By what rule or rules can the hospital requirements of a community be determined?

The circumstances under which medical treatment should be domiciliary rather than institutional.

The extent to which standards of hospital provision (number of beds in proportion to population) and hospital service (organization and equipment) may be wisely imposed by law.

The proper proportion, in a given hospital or community, of private rooms, semi-private wards and free beds.

The conditions that justify free hospital treatment.

What classes of "special" hospitals are desirable; and what should be their capacity?

Should cases of contagious disease be cared for in general or in special hospitals?

The development of group diagnostic facilities for persons of moderate means.

How can physicians in rural communities make the nearest approach to that efficiency in clinical practice that springs from specialization and the division of labor?

What changes in hospital policy are suggested by the study of rejected applicants for admission?

By what principles should the use of public money for the support of patients in private or semi-private hospitals be governed?

Under the social and political conditions prevailing in the United States, should the establishment and development of municipal or voluntary hospitals be advocated?

Is private hospital administration compatible with (a) compulsory health insurance; (b) with state medicine?

From the standpoint of effective medical team work, what is the most desirable number and character of clinical departments in a general hospital?

How should the laboratory departments be organized for the purpose of securing maximum efficiency in diagnosis and research?

What is the best means of securing an expert staff (examination, arbitrary selection)?

What are the most effective measures for discovering automatically any tendency toward deterioration in the work of the staff?

The relative merits of part time and full time, and of paid and unpaid medical service in communities and hospitals of varying size and character.

To what extent should patients be followed after discharge in order to ascertain the results of treatment?

What term and character of service are required to fit interns for general practice?

Is the standardization of medical nomenclature feasible?

How should the hospital's medical statistics be utilized?

The function and proper limits of the out-patient department.

Should tuberculosis and venereal clinics be combined with general dispensaries?

The coordination of out-patient and in-patient departments.

The utilization of the hospital for the instruction of physicians not members of the staff.

The adaptation of the nursing curriculum to meet modern needs.

What is the relative cost of pupil nurses, properly housed and taught, and graduate nurses?

The definition and organization of medical social service.

To what extent should the hospital undertake the vocational and social guidance of the convalescent?

What are the economic and social reasons against the housing of hospital workers in hospital dormitories?

Can large numbers of the sick be properly fed from a central kitchen?

To what extent are mechanical aids to ventilation useful in hospital practice?

Under what conditions should steam be used for heating in preference to hot water?

To what extent should various classes of hospital workers be safeguarded against disease by protective inoculation?

By what means, whether of construction or administration, may the spread of disease in hospitals and dispensaries be prevented or minimized?

In what respects does foreign hospital practice differ from American, and what are the merits and demerits of the respective systems?

Few hospital superintendents will claim to have mastered all of these questions, and yet it is in this broad field of study and investigation

that the key to hospital progress is to be found. The situation calls for the creation of a center or centers of study where opportunity may be afforded to men, already grounded in medicine, to acquire a knowledge of the history of organized medical endeavor, of sanitation and hygiene, of sociology, of law and legislation, of business and accounting, of domestic science, of hospital architecture, and of the principles of heating, lighting, and ventilation; where, furthermore, by direct contact with capable hospital administration, they may gain facility in dealing with every-day problems; and last and most important, where, under competent direction, they may learn to analyze the crucial problems of medical administration. Those who undertake the teaching of medical administration will necessarily spend a large part of their time during the first decade in learning to formulate its problems. Like all important teaching centers, the school for hospital superintendents, yet to be established, will accomplish its most important results in the field of research.

GARDENING AS AN OCCUPATION FOR TUBERCULOUS PATIENTS

By JOHN I. PINKNEY, Assistant Superintendent, State Sanitarium, Wallum Lake, R. I.

IN so far as is possible, the surroundings and atmosphere of an institution for tuberculous patients should be bright and cheerful. The patients are practically isolated from society and friends. From the nature of their disease, they lead a quiet and sedentary life, and it becomes a matter of great importance that their environment be made as pleasant as possible.

We have been able, through the medium of gardening, to improve the appearance of our grounds, supply the institution with cut flowers and many fresh vegetables, and at the same time to furnish employment to many of our patients. This work diverts their thoughts from themselves and their symptoms and gives them some pleasure. Incidentally, they gain a little knowledge that will perhaps be of some use to them after leaving the sanatorium. Gardening at Wallum Lake has long since passed the experimental stage, having been introduced as a part of the graded work and exercise system in the early days of the institution.

There was no arable land on the sanatorium property in 1905, except a little immediately surrounding the buildings. That year the patients were put to clearing the wood from the land, which had not been cultivated in a great many years and which was then covered by a young growth of hard wood. Part of the chopping was

Fig. 1. A view of the hospital grounds in their original state before the landscape gardener waved the magic wand which worked the transformation shown in Fig. 4.

done by employees, but a few patients were allowed to chop small trees. Patients considered able to do farm work were classified as to their ability to chop, mow brush, carry brush, dig roots, hoe in the garden, etc. They were graded as to the length of time spent at work. All these patients commenced with twenty minutes' work, which, in as many cases as possible, was gradually increased to two hours, the maximum required. All patients on the exercise list were required to do farm work, including the women, who picked vegetables and did the lighter work. While some objected to farm work, the numbers were not much greater than those who objected to doing any work about the sanatorium. In all, about ten acres of land were cleared in this way and today constitute the sanatorium garden.

Fig. 2. The first stage of improvement consisted of the removal of the scrubby pine trees root and branch and of the *débris* incident to building operations.

As soon as the land was ready to plant, it was divided into small gardens, and each patient was encouraged to plant some one thing, the whole constituting a well balanced vegetable garden, suitable to the requirements of the institution. This method was found to be impracticable; so many patients lost their enthusiasm when the weeds began to grow, and still others, their interest when they realized they would probably leave the institution before harvesting time, that voluntary labor in the individual garden patches was abandoned. Compulsory labor on a common garden was substituted, and this method has proved entirely satisfactory.

Garden a Profit to the State

The amount of work done by the patients and the results obtained have naturally varied from year to year, depending on the season, the kind of crops raised, and the number of patients considered fit for this kind of work. In the aggregate, aside from raising a good part of the fresh vegetables used in the institution, an average yearly profit to the state of $168 has been achieved. While the amount may seem small, it must be remembered that the

Fig. 3. Dispensing with the barbed wire fence and its posts enlarged the perspective, and the laying out of the formal garden and winding paths followed in natural sequence.

ground planted had first to be reclaimed, and reclaimed land is necessarily rough and expensive to till. The land was also run out, and the amount of fertilizer that had to be used was a big factor in keeping the amount of the profit down. A big item of profit that can not be estimated in dollars and cents is the satisfaction of having an abundant supply of fresh vegetables from your own garden. If you have had the pleasure of eating such vegetables and comparing them with vegetables picked in some one's else garden, shipped to the wholesale market and thence to you, several days later, you can appreciate the difference.

Fig. 4. This beauty spot which is visible from the windows of the Service Building was reclaimed from the pine forest, flowers now replacing the unsightly stumps and stones.

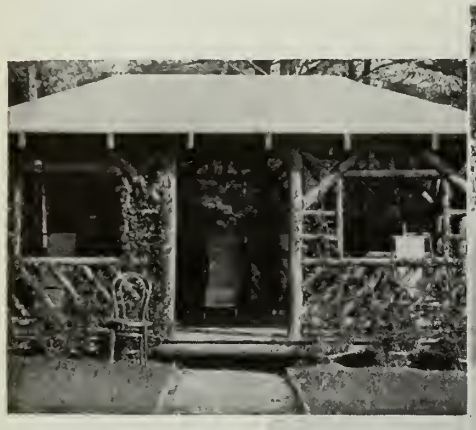
In 1917 it was deemed advisable to concentrate our efforts on the improvement of our grounds in the immediate vicinity of the sanatorium and hospital buildings. This decision was largely influenced by the opening of the new hospital to care for far-advanced cases of tuberculosis. Another fact influencing us was that in spite of our numbers having increased threefold since 1907, the physical condition of our patients was of such a standard that the number of patients considered able to do farm work was no longer sufficient to care for the vegetable garden with the increased demands upon it, and to give any attention to the growing of flowers. With the coming of the new hospital, we considered a flower garden necessary. A gardener was therefore hired to look after the vegetable garden, and the work, aside from the picking of vegetables for daily consumption and aiding in the harvesting of vegetables for winter use, was largely done by the employees. Up to this time, little or nothing had been done in the way of flower gardening. The institution buildings, with the exception of the new building, were surrounded with particularly fine lawns which served our purpose admirably as long as the great majority of our patients were up and about, and able to go for walks in the surrounding woods. They could thus provide themselves with change of scenes. But with the coming of the far-advanced cases, the majority of whom were unable to leave the building, it was evident that some change of scene must be provided for them. Hence our first efforts were made in front of the hospital building. What obstacles had to be overcome and what measure of success has been

achieved may be judged from the accompanying photographs.

Garden Accomplished by Patients

The present site of the hospital and garden was covered with pine trees which had to be cut down, the stumps removed, and an almost unbelievable number of stones dug out and carted away. The photograph (Fig. 1) shows the conditions before anything was done. The removal of the stumps and stones had to be done largely by employees. The laying out, planting and care of the garden has been accomplished almost entirely by the patients, the same rules governing their labor being employed as in the vegetable garden, all work being assigned and done under direct medical supervision.

The photograph (Fig. 3) gives some idea of the garden as it appeared three months after planting. It is of formal design, and in so far as possible planted with perennial plants to avoid yearly renewal, which would add materially to the cost of upkeep. Some annuals had to be used and should be continued, to aid in keeping up a perpetual bloom throughout the season. Separating the lower end of the garden from the service buildings is a lilac hedge which serves as a screen. These lilacs were dug and brought to their present places from abandoned farm house yards, of which there are a number in this community. The evergreens used were obtained in the same way from the surrounding woods and fields, and many of the shrubs are native to these parts. I mention these facts to illustrate how the cost may be kept down. In all, about thirty thousand plants and shrubs were used.



A rustic summer house flanks the arbor on the right and with its comfortable chairs furnishes a cool, shadowy place in which to spend a hot, lazy afternoon.

Labor Day was celebrated on the lawn at the sanatorium, music being furnished by an orchestra stationed in the arbor at one side of the garden.

Fig. 5. The potato patch yielding up its season's crop at the onslaught of this group of smiling patients, every member of which is revelling in the health-giving exercise.

The garden has given the patients a wonderful lot of flowers, and, with the ever changing play of color, has called forth so many favorable comments from visitors and friends of the institution that we are planning to extend the work considerably this spring. We already have about twenty thousand seedlings started in one of the unused hospital wards. A greenhouse is also being erected by the patients, one hundred feet by twenty feet, to enable us to supply the institution with potted plants and cut flowers during the winter months.

We hope to expand this work as a part of a vocational education scheme, in which we are deeply interested. That patients who know very little about gardening before coming to the sana-

torium may become so interested that they will take it up as a vocation is proved by the fact that one, at least, of our former patient-gardeners now occupies the position of assistant gardener in one of our larger eastern colleges.

Any institution using a little patient-labor can accomplish with a very little expense what has been done at Wallum Lake. One word of advice. Whether your institution already has a garden, and you are contemplating some change or addition thereto, or whether your institution has none, and you are contemplating planning some sort of garden; in either case, have a good landscape gardener prepare working drawings of your grounds, or, if the expense is found to be too great, have some one competent to judge, go over your plans before beginning work. It must be remembered, in planning and planting even the most modest grounds, that you must be able to peer into the future, anticipate many years of growth, and see the finished picture. The ultimate success of your garden will not be determined now, but in years to come. The above advice, if followed, will enable you to do a little each year, always working toward the same end, and will save the expert's fee many times over.

Fig. 6. Now instead of increasing their melancholy by looking out over a desolate waste, the patients feast their eyes on a riot of beautiful colors and the hardy perennials nod gaily to them with each passing breeze.

RECREATION FOR STUDENT NURSES

Remembering that "all work and no play make Jack a dull boy," or Jill a dull girl, a recreation program has been undertaken by many of the hospital nursing schools in San Francisco, to provide a variety of activities and entertainment for the nurses when off duty. In one hospital where there are 130 student nurses in training, the activities are divided into athletic, musical, devotional, and literary, and the girls register for the one in which they are most interested. Swimming and dancing are most popular, with tennis, hikes, and musical clubs also having their devotees.

Once a week a recreation instructor coaches the girls in tennis, basket ball, and volley ball. On rainy days the social hall is popular with its dancing and games. A feature especially appreciated by the nurses has been a series of four dances this winter, held in private homes of the women on the Board of Managers. These gatherings are informal and the nurses may ask their own friends. In some of the nursing schools the superintendent gives an informal tea following the athletic activities, once a week.

The educational program consists of lectures and talks on subjects remote from the curriculum, and evenings given over to parliamentary drills.

PREVENTION OF INFECTIONS IN THE HOSPITAL

By D. M. LEWIS, M.D., New Haven, Conn.

Some valuable observations as to the causes of infections in the hospital were made by the author of this article when camp epidemiologist at Camp Custer, Mich.

Although antiseptics as applied to patients and to the hands of attendants handling infected patients have been long recognized as the great preventive of the spread of infection in hospitals, the possibilities of the attendants, nurses, and physicians themselves being carriers has received scant attention. Hospital authorities should see to it that attendants are free from naso-pharyngeal abnormalities and pathological lesions.

ANTISEPTICS as applied to patients' contaminated excretions or secretions and to the hands of attendants handling infected patients have, since the day of Lister, been recognized as the one great preventive of the spread of infection in hospitals. The possibility of the attendants, nurses, orderlies, and physicians themselves as carriers giving rise to infections in the hospital has received scant, if any, attention. I have shown the irrationality of trusting the cap and gown with hair sterilization as a prevention in a nurse transferring scarlet fever, when, after discharge from a case, she is found with all the signs of being a mild missed case.[1] I further called attention during the time of epidemic poliomyelitis in 1916 that the added face masking of physicians and attendants was rational, should there be added the postulate that it was done from the point of view of not transferring infective naso-pharyngeal germs of the attendants to patients. Since that time, Weaver has called attention to the face mask as a measure mainly of protection again to the attendant. That it was, as well, a measure of protection to the patient has recently been alluded to in army literature, in the study of how hospital wards became infected. It was demonstrated that some patients acquired their secondary infection after arrival, masking methods for prevention of infection were in force I had my attention called very forcibly to the possibilities, when, after the opening of an isolation hospital, this occurred: On January 5, two nurses were reported as cases of scarlet fever; on January 10, one nurse and one hospital patient were reported, and this was repeated on January 15. During the remainder of the month, four more nurses and two more patients were reported.

In February there were five hospital attendants and four patients, in March two, and in April one. Since that time I have realized that it has not been infrequent to have cases of both scarlet fever and diphtheria given hospital patients by attendants.

How Infections Occur

A most clear-cut example of how such infections occur came to my attention recently as camp epidemiologist at Camp Custer, Michigan. Under the commanding officer of the base hospital, all the modern methods for prevention of infection were in force and rigidly adhered to. All patients were required to be masked when not in cubicle, and all attendants were masked whenever they were in the wards, with the further provision made for them that they also sleep in cubicle system. After an occasional case of scarlet fever in December and early January, ten cases had followed after the middle of the month, and three in February.

This frequency with the appearance of cases all in different attendants' barracks and in the different wards was mainly a source of tying up personnel through quarantine, which no measures had stopped. Asked by the commanding officer to determine the source and advise any further measures of prevention, I started an investigation from two points of view, procuring first, the names of all close personal friends as obtained from each case; second, a list of all the base hospital personnel who had been patients in the hospital since the "flu" epidemic, with any illness respiratory in type. I found that the respiratory infections of that personnel were higher than for any other organization in the camp, none having a rate in excess of 300 until the middle of December, almost immediately after the "flu." Further, that an analysis of the curve of the base hospital personnel rate resolved itself into one for two parts of that personnel, namely, orderlies and nurses. The accompanying illustration shows this clearly, and also shows the fact that all the cases of scarlet fever to the middle of January had been limited to the orderlies. Through the

[1] D. M. Lewis, M.D.:
A Laboratory Aid in the Diagnosis of Scarlet Fever, Boston Med. and Surg. Jour., February 1, 1917.
Lessons from the Past and Possibilities for the Future, New York Med. Jour., May 19, 1917.

list of personal friends of those on the sick list, I found an orderly whose history of sore throat and gland enlargement was the only one suggestive of being a missed case. The data disclosed the fact that the only friend in common with all but one of the cases through January 10, and, further, a common friend of three cases during the following two weeks, had been transferred to the quartermaster's corps, following a few days' stay in the hospital. This explained the apparent disappearance of the disease among the orderlies, and the appearance among the rest of the personnel.

The remaining ten cases after the middle of January centered mainly around the probability of infection by an attendant at the Red Cross, which does not pertain to the article. The lesser three hospital cases as bed cases must have had their infection given them within the hospital. Two of these could be dismissed as not true scarlet fever, both showing nothing but a toxic rash immediately following thoracotomy, with the absence of throat signs or others. The remaining one with definite throat and tongue led me to examine the attendants of the ward. Of the five orderlies there were two definite nasal carriers, though neither showed the very constant scarlet fever tongue of carriers. Cultures showed that one had 50 per cent hemolytic streptococci, the other 100 per cent.

Masking Attendants Effective

There was then apparent the effectiveness of masking attendants who, unmasked, could give their fellow workers the disease. This was again evident in following the nurses' respiratory curve, on which stands out in the continuance of diphtheria and diphtheria carriers the fact that no case of the disease was given to any hospital patient. This one point I recommended to the commanding officer as the important measure not included in the hospital technic; naso-pharyngeal abnormalities with inflammatory lesions unmasked were a source of disease outside the hospital and directly (in this instance) of non-effectiveness of personnel, not only from cases of dis-

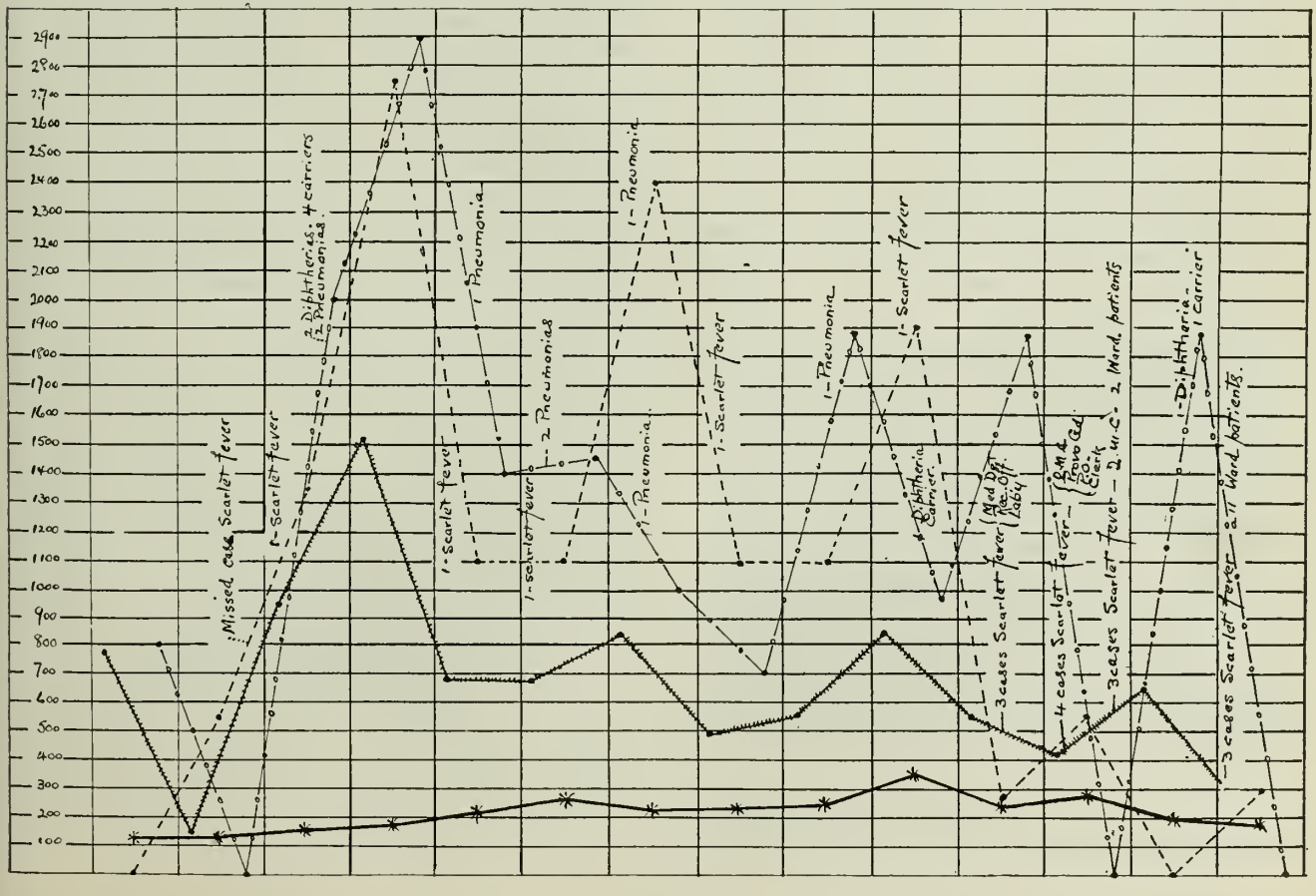
DIAGRAM SHOWING WEEKLY RATES OF RESPIRATORY DISEASES AND HOW INFECTIONS OCCURRED AT CAMP CUSTER, MICH.

Weekly rates of respiratory diseases of:

(a) Total Camp
(b) Base Hospital
(c) Orderlies
(d) Nurses

Average Strength of Organization by Months

	Nov.	Dec.	Jan.
Camp	35,285	31,231	26,132
Base Hospital	1,048	1,020	963
Orderlies	298	302	296
Nurses	200	153	109



ease but from the numbers of personnel tied up by quarantine. Unfortunately at this time, there were government orders against operating on naso-pharyngeal abnormalities in soldiers, so that orders were then issued that all such should be locally treated, and that in the future no hospital patient should be discharged until all naso-pharyngeal pathology had subsided. Two weeks later there were three further cases in the utilities and provost guard of the base hospital, all of them contacts of two missed cases of camp utilities men who were treated at their infirmary, transferred to the hospital personnel, and found desquamating when the three cases occurred. Otherwise scarlet fever infection disappeared from the hospital.

Irrespective then of whether the hospital does or does not have so-called contagious disease wards from which it is presumed attendants pick up carriership, there is this one point of responsibility with hospital authorities, a responsibility to attendants themselves and to patients, that all such attendants shall be free from naso-pharyngeal abnormalities and pathological lesions as not only being the possible carriers of respiratory diseases, but as being made carriers unwittingly from outside sources. Masking such individuals is but part of true prevention.

Study of pneumonia carriers in children in civil life has shown me a problem exactly analogous to diphtheria and scarlet fever. It would seem that a similar interpretation may be read into the pneumonia frequency in nurses on the illustration.

THE DOLL ETERNAL

By MARY HAMMOND BARKER, Supervisor of Kindergartens, Worcester, Mass.

WHAT a heap of good the period of conservation during the war has done us all. It taught many of us not to struggle for things on the other side of the fence but to dig diligently in our own garden plot. The old New England custom, "rip it up, wash it and press it," has proven not a bad inheritance. We all have a laudable pride in our grandmother's achievements along this line.

Do you remember the story published in "Life" years ago of an untimely surprise party given to a country minister? The merry parishioners arrived at the moment the little son had wrapped a braided rag mat about his small body, as his mother needed his pants for a pattern. The frugal wife had laid the minister's second best trousers on the table and stood meditating, scissors in hand, when a loud knock came and the surprise party began.

The war conservation movement taught us not only how well we, like our grandmothers, could manage by making the most of what we had, but also how excellently well we could fashion substitutes for articles heretofore considered indispensable. This is manifestly so in the case of dolls and toys.

The Doll Eternal

The doll is an universal toy, it antidates recorded history. Dolls have been found in Egyptian tombs that belonged to little girls thousands of years ago. It is the modern child who suffers from the commercial doll, that spiritless creature turned out by the thousands in some

Fig. 1. Mammies and Tar Babies are among other interesting specimens made from gloves and stockings. The jaunty sailor boy at the top is made with spools, with feet and hands of white pearl buttons. The tops of a pair of blue sox make the sailor suit.

Fig. 2. A raging, rampant creature made by stuffing the foot of a child's black stocking, and annexing legs and tail. Green calico eyes and whiskers—straws from a whisk broom—add the artistic touch.

factory. With her ready-made smile and ready-made clothes she lacks poetry and possibilities.

Clara Hazel

To the casual observer Clara Hazel (Fig. 3) may look uninteresting. But just put the pattern of this plain old-fashioned rag baby down by a little girl, with some bits of cloth and pair of scissors and see what happens. Using a pattern is not quite easy for a little child. So, show them how to pin it on to the cloth—then away they go. Do not be fussy as to methods of sewing. Children under six years of age are seldom dismayed over raw edges. Possibly they will sew the edges over and over and stuff the doll with anything, from cotton batting to wood or cork sawdust, bran or sand. At the age of six or seven finish in a product does not appeal. The achievement of the toy is the joyous thing. The little pattern of dress, bloomers, and sunbonnet made from a circle will all be attempted later. I have seen this doll made of brown paper and stuffed with paper scraps, the result of an afternoon's work on a train by a child who had become travel-weary. I have seen hundreds made of fine cloth with lovely dresses and hand-painted faces ready to send this last Christmas to the children in France. This was the work of the Boston Public School kindergartens.

Fig. 3. Clara Hazel, the plain, old-fashioned rag baby, may be made with cloth or paper. The pattern given is for dress, bloomers, and sunbonnet made from a circle.

Fig. 4. String, worsted, and corn broom dolls ranged from the rakish looking doll on the upper left, to the demure clothes brush nurses standing in front.

Dolls of Any Conceivable Material

Recently it was proposed to present some aspects of the project method of instruction to the first-grade teachers in Worcester, Mass. Classes of forty or so teachers were formed. Toy making along conservation lines was one of the main topics. Each teacher was asked to make over night a doll using only odds and ends. Nothing was to be bought, and the only other restriction was that the class keep within the limits of material available for any child. This elementary doll making was the cause of much invention and clever use of every day materials, in fact, waste materials. Each teacher arrived the following day feeling she had a unique product only to find thirty-nine others in her class had produced a doll equally unique and totally different. Here is a partial list of household utensils and materials used by one class of first grade teachers: gloves, stockings, clothes-pins, tin baking-powder can, dish-mop, clothes-brush, vegetables, nuts, fruits, tennis ball, golf ball, tin funnel, bottles, twine, worsteds, stick of wood, kitchen spoon, towel, stiff paper, newspaper, paper bags, and pipes.

String, worsted, and corn broom dolls ranged from the rakish looking doll in Figure 4, to the demure clothes brush nurses who stand at the

front. Much to my surprise the nature dolls (Fig. 5) did not show up well before the camera. The stiff little lady at the right is made of Indian sweet grass. She has a wealth of hair as you may see by the braid at her back. Her head is capped with a hat made of an oak leaf and trimmed with a bunch of bitter-sweet berries.

Stocking and glove dolls (Fig. 1) showed many black stocking Mammies and Tar Babies. The j..unty sailor boy at the top is made of spools with feet and hands of white pearl buttons. His sailor suit is composed of the tops of a man's blue socks.

The ladies in Fig. 6 are not beautiful but may be classed as unique. The leaky hot-water bag made a hugable rubber baby. The severe person who stands guard over her is made of a stick of firewood. Her newspaper petticoat has a neat apron of waxed paper over it. The remarkable wrinkled potato face seems to have the expression sometimes seen on a wise old rat. In Figure 2 there is a raging, ramping creature who was brought in by a teacher who was always original. You will discover in a second that the cat is only the foot of a child's black cotton stocking stuffed. Legs and tail are annexed. The artistic touch is the green calico eyes; straws from a whisk broom make the whiskers. Of course these first grade teachers had a larger stock of materials to select from, because they were living in their homes, than nurses in training would have.

The junior nurses in the Worcester City Hospital a year or so ago, fell into sad disgrace over just this matter. They were told to bring into class the next day a rag doll. The conditions were: nothing new must be used in the dolls' make-up or any materials of any value, also it must be so light a sick child could hold it. Result —some fine dolls but a shortage of napkins and towels reported by the house matron. In an interview the girls stated to the matron that they must produce dolls made of waste materials, and that the table napkins supplied them were nearer total delapidation than anything else they could discover in the institution.

* * * *

Why are we leading those who have charge of children, mothers, teachers, and nurses to abandon machine-made toys and surround the child with materials that shall incite him to create his own toys? In short, to place the child in a laboratory, a position where he will adjust, re-create, add to, take away, change, manipulate. The psychology is this: the child has a race instinct for manipulation. Man is a created being, expressing himself with every known material and substance. It is this instinct, powerfully pushed

Fig. 5. A group of nature dolls. The little lady at the right is made of sweet Indian grass and has a luxuriant braid of hair. She wears a picture hat made of an oak leaf and trimmed with a bunch of bitter-sweet berries.

Fig. 6. A leaky hot-water bag made a hugable rubber baby. The severe person beside her is made of a stick of firewood with a potato for the head. Her newspaper petticoat has a neat apron of waxed paper over it.

by need or necessity, that has given us every invention that has been produced since man began to walk upright on the face of the earth. Encouraging this instinct in the child leads to the development of creative ability, initiative, and independence of thought, the final result of which is self-realization.

Child's Instinct for Manipulation

We find that the average city child has not had the opportunity in the last two generations to manipulate material. He has been discovered, upon examination, to be lacking in ideas and skill of hand. It is not all the fault of the public school. The larger part is due to the living conditions of the average city child. The crowded tenement house, the sidewalk playground, the frail Christmas toys bought ready made, have all limited his desire for self-expression. Then the home frequently lacks both insight into the needs of little children to express themselves in hand work, and appreciation of their crude efforts. As for the teacher, she is discovering that handwork or projects lead to more thinking than books, that well presented subject matter suggests illustration in the way of handwork with materials easily obtained in the home of the average child. Once the children discover that in what we used to call lessons and now call projects they can set their own goal, choose their own material and method, they no longer need to be pushed—they are off on the wings of the morning. This brings about cooperation between the teacher and the pupil that is the finest result of all.

Concentration, skill, and originality, as well as satisfaction from the productivity of their efforts are to be summed up as gain in this new school method. To the district nurse, I would say, use your creative power and never leave a little sick child without a toy or doll if there is a stick of wood and a rag in the house to wrap around it—the child's imagination will do the beautifying.

RURAL HOSPITAL ORGANIZATION

By J. W. PETTIT, M.D., Medical Director, Ottawa Tuberculosis Colony, Ottawa, Ill.

THE most serious defects of the hospital of today can be traced to the unbusinesslike foundation upon which it rests. The evolution of the hospital began in the poorhouse. As time passed and medical science progressed, one and another poorhouse feature was discarded until today we have an entirely different institution, bearing none of the earmarks of its progenitor except one—it is still the dispenser of charity. This has been and still is regarded as an indispensable feature and its chief corner stone. The charity feature made the hospital of the present possible, but is now the one great obstacle to its further progress. It is the last link which binds the modern hospital to that of the past. Until this link is broken the modern hospital cannot be conducted on business principles and until it is conducted as a business enterprise it cannot attain its highest degree of usefulness. Hence, we must modernize the economics of the hospital just as we have its appointments and service. It is

Is the charity feature of the hospital of the present the one great obstacle to its progress?

In the past the chief difficulty in rural communities has been, not in securing funds to build and equip hospitals, but in obtaining funds for their maintenance.

Would demanding payment for every patient admitted to the rural hospitals, place them on a firm business basis?

Can the hospital function essentially as a business enterprise and rely upon charity organization societies to assume financial responsibility for the hospital care of the poor?

the charity feature of hospital management which breaks it down as a business enterprise and until relieved of this burden it will always be a community beggar.

When the hospital was an exclusive charity and so understood, its needs were met on this basis: every community doing as much or as little as it deemed necessary. With the advent of the pay patient it became partly a business and partly a charity institution. As the hospital has become more popular the disproportion between charity and pay patients has grown greater and greater until now the majority are admitted as pay patients.

The hospital field in this country is the broadest and most promising and yet the least developed and most poorly organized of any of our public institutions. The medical side of the hospital has been fairly well developed, but the business side is about as bad as it can well be and maintain an existence. The writer's plea is to place these institutions on a sound business basis

and all the blessings which the hospital is designed to bring will follow. This can only be done by making its support *absolutely independent of charitable contributions.* It should be regarded as a public utility and be put upon the same business basis as public service companies. These are not dispensers of charity. How long would they properly function if they should make the attempt.

Pay for Every Patient Admitted

The plan proposed is to separate the hospital from charity by demanding pay for every patient admitted—those who can afford it to pay for themselves; those who cannot to be paid by an organization or organizations whose special function is to dispense charity. In order to protect the deserving poor from injustice and protect the hospital from imposition it should be understood that every acute or emergency case must be received without delay and that as soon as practicable the financial standing of every doubtful patient should be determined by the proper charity organization, and if indigent, the organization charged with the responsibility of caring for the patient assume payment of the hospital fee.

The chief difficulty in conducting the rural hospital is in securing proper financial support. This is due principally to the constant drag of the charity patient. Relieve the hospital of this burden and it can be conducted on business principles, making it unnecessary to be constantly dragooning the community for funds to keep it going. Its accommodations can be substantially on the same basis as now—private rooms for those able to pay and wards for those supported by charity. It should be conducted with the avowed purpose of making a profit on private patients, the earnings to be used for the betterment of the hospital itself. Such a plan will take the hospital out of the pauper class and make it a self-supporting business concern which will deserve and command the support of the public on its merits. It must not be assumed that this plan contemplates leaving the care of the deserving poor to chance. Practically every community has charity organizations already in existence which can assume responsibility for this class. If not, a special organization can be brought into existence. This will insure the care of the deserving poor, because this will be the special function of the organization, but will also protect the hospital and public from imposition by those social parasites who are willing to accept hospital service without ever intending to pay for it, but who are too proud to accept aid from a strictly charitable organization.

The plan proposed will simplify the management by doing away with the numerous governing bodies which seem to be necessary under the present system to secure the financial support of a large number of people. These numerous governing bodies are a serious handicap to the business management of the institution. Hospital authorities have accepted the maxim that "Much management is always bad management." In other words, when the hospital is relieved of the meddlesome interference of its multiple managing boards (its fool friends) it will fall into the hands of experienced hospital managers who will not only give it a better business administration, but will be alive to the progressive demands of the modern hospital, of which those now in control have no proper conception. It will place the hospital on a business footing where, with good management, it will be self-supporting. It will offer an inducement for public-spirited citizens to contribute funds for building and equipping hospitals and simplify their management by placing them in the hands of fewer people.

The average hospital does not command the confidence of business men, for the reason that they feel it is not conducted in a businesslike manner. They do not know what is wrong, but believe that the contributions they are called upon to make are not wisely expended. They give sparingly and even grudgingly. Those responsible for the management may be good business men but find themselves handicapped by a vicious system in which the fundamental error is in attempting to conduct a business enterprise on a charity basis—two elements which are almost as difficult to mix as oil and water. All, or at least most, of the evils of hospital management can be traced back to this fundamental error. But little difficulty is experienced in securing funds to build hospitals where the need exists. The difficulty is in maintaining them. Divorce the hospital absolutely from charity, conduct it as a business enterprise, and it will not only sustain itself but earn enough to provide for future development. The original investment in buildings and equipment, with just sufficient assistance to make it a going concern, will be all the financial aid it will ever need, if relieved of the burden of dispensing charity, with all its attendant evils.

Present Methods Extravagant

The present methods are not only loose but extravagant. It is safe to say that under the present system, if an accounting were made on a strictly business basis, it would be found that it is costing more to maintain charity patients than is necessary for the maintenance of private pa-

tients if the business administration were what it should be. It is little short of a tragedy to see large sums of money invested in badly located, extravagantly constructed buildings, irrationally equipped by well meaning people who do not realize that the hospital is a medical and business institution requiring the highest order of business ability for its successful operation. Well meaning persons who would hesitate to undertake the management of a bank, a manufacturing concern, or other business enterprises, do not hesitate to assume the responsibility of building, equipping, and operating a hospital, which requires quite as much ability and technical skill as any of the institutions named.

The proposed plan, while novel and untried, the writer believes is fundamentally sound. Either this or some other plan must be adopted to place the rural hospital on a better business basis if it is to attain its maximum of efficiency. Sentiment and tradition are the lodestones which will make the change a difficult one to bring about. The plan can hardly be expected to be adopted by hospitals already in existence. The plan proposed is so radical that in all probability its feasibility will have to be demonstrated by proposed hospitals rather than those already in operation.

Must Remove Charity Feature

Any attempt to place the rural hospital on a sound economic basis by retaining the charity feature will prove futile. Relieve it of this unnecessary burden and it will be possible for the rural population to have the advantages of modern methods which the small hospital as at present conducted does not and can not afford. If it is the business of the community to maintain hospital accommodations for charity patients (and it certainly is), the rational and business-like thing to do is to let the hospital function as a hospital, and the charity organization function as a charity organization, but do not attempt to carry out both under one organization, especially in view of the fact that their objects are diametrically opposed and can not be reconciled.

The plan proposed may or may not be applicable to the metropolitan hospital. The writer is convinced that it is applicable to the rural hospital.

HOSPITAL STANDARDIZATION IN THE WOMAN'S HOSPITAL IN THE STATE OF NEW YORK

By GEORGE GRAY WARD, JR., M.D., F.A.C.S., Chief Surgeon, Woman's Hospital of the State of New York, Professor of Gynecology, Cornell University Medical College*

By an analysis of its old organization, this hospital found that it could not attain maximum efficiency and minimum waste on account of divided authority, too large a staff, a multiplicity of independent services, failure to study end results properly, and a lack of the stimulus of teaching.

A reorganization of the service, which included the placing of a chief surgeon at its head and the opening of all departments to undergraduate students brought about remarkably increased efficiency.

The weekly conference of the entire hospital staff is found to be of inestimable value both to the members of the staff and to the patients.

IN January, 1918, the board of governors of the Woman's Hospital, appreciating the importance of the great movement of hospital standardization that had been inaugurated by the American College of Surgeons for the betterment of hospital conditions in the interests of the patient, provided for a reorganization of the service. In order that there might be a centralization of responsibility, the board declared for a system of unification with a chief surgeon, having ample powers, at the head. This plan standardized and simplified the procedure throughout the hospital.

The heritage of the Woman's Hospital is a great one. It can rightfully claim to be the birthplace of gynecology, as it was founded in 1855 by Marion Sims, and is the first hospital in the world devoted to that specialty. Such names as Sims, Emmett, Thomas, Peaslee, and Noeggerath as attending surgeons speak for the important contributions to science that have emanated from the hospital, and it was but natural that tradition should be the fetish that narrowed the activities of the service under the old system of organization. The former organization was a multiple one; there were five gynecological services and one obstetrical service. At one time there were as many as six

*Read at a Meeting on Hospital Standardization of the American College of Surgeons, New York, N. Y., Oct. 24, 1919.

gynecological services, the head of each being practically independent, and having the power of nominating his assistants in the hospital and out-patient department. Naturally the staff was much too large for the size of the service, and since every member of the staff had his own ideas for the pre- and post-operative care of his patients, the nurses had to attempt the impossible in carrying out, without error, the many different sets of standing orders on file in the wards. The administrative control of the service rested with the surgical board, which consisted of ten members, each with a vote. No organized teaching was done in the hospital. An analysis of the old order of organization showed that the hospital could not carry out its functions with a maximum of efficiency and a minimum of waste on account of a divided authority, too large a staff, a multiplicity of independent services, a failure to properly study end results, and the lack of the stimulus of teaching.

In February, 1918, I was put in charge as chief surgeon, with the commission to reorganize the service on a unit basis, and the by-laws were changed to effect the same. Furthermore, the governors, appreciating the importance of teaching to the progress of the hospital, opened the doors of all departments to undergraduate students. The reorganization has been planned to endeavor to fulfill the three cardinal functions of a hospital, namely,—first, and foremost,—the care and cure of the patient; second, the educational side, i.e., teaching the nurses, interns, students, and the medical profession; and third, contributing to knowledge by scientific research.

The present organization consists of but one service, which is continuous and under the control of the chief surgeon. This service is subdivided into the gynecological, obstetrical, and out-patient departments, and the special departments of pathology, urology, gastro-enterology, and radiotherapy. An historical department under an historian who has charge of the records, and a follow-up and social service system, complete the organization. The attending staff now consists of the chief and four attending surgeons on duty, one of whom is the obstetric surgeon, and five junior attending surgeons. Each special department has a head with the necessary assistants. The entire staff is subordinate to the chief surgeon, who has the power of making all nominations in all departments. He assigns the clinical material as he thinks best, and he may also use it for teaching purposes.

The gynecological department, which has 106 ward beds, is divided into four divisions, each under the care of the chief and three attending surgeons. A junior attending surgeon is assigned for work in each division. All gynecological patients who enter the wards of the hospital from the out-patient department, or by reference, are assigned to the divisions in rotation for diagnostic study, and a report of the provisional diagnosis must be sent to the chief's office as soon as possible and not later than forty-eight hours. The cases are then reassigned to the staff for operation or treatment in accordance with their particular interest, if deemed advisable.

The obstetric department has twenty-five ward beds and is under the care of the obstetrical member of the staff with a junior attending surgeon to assist.

The out-patient department is under the supervision of one of the junior attending surgeons, who is responsible to the chief for the proper conduct of the department. There are six clinics, each having two sessions a week, so that there is a morning and afternoon clinic each day. The chiefs of each clinic, who have the title of adjunct assistant surgeon, have the necessary assistants. During the summer months, when the junior attending staff act as attending surgeons, these adjunct assistants come into the hospital as acting junior attendings, and thus have an opportunity to develop and show their worth in the operating rooms and in the wards.

The special departments of urology, gastro-enterology, and radiotherapy each hold two clinics a week during which they make the necessary studies on the cases referred from the wards or the out-patient department.

The house staff has been reorganized to conform to the new conditions and to provide a well balanced service, insuring each intern work in every department. There is a paid resident gynecologist who is in control of the entire intern staff and is held responsible for their discipline and work. He is in charge of all private patients and assists with these cases. The obstetrical service is also in the care of a paid resident. The service of the paid residents is indeterminate and may continue as long as their work is satisfactory. The intern staff proper comprises two divisions, each consisting of a house surgeon, with a senior and junior assistant. Their service is for one year and they serve in each position for four months. Each junior assistant serves two months in the obstetric department, as we believe a man will be better prepared for gynecological work if he has had special obstetrical training. The two divisions exchange services every two months so that each intern is given the opportunity to work with all the attending staff.

One of the requirements that has been in-

stituted is that a thorough, careful, and complete preoperative study must be made of every patient. In order to allow this, the average stay of a patient in the wards before operation is from three to four days. In addition to the history and complete physical examination, a blood examination, including a Wassermann test, blood pressure, smears, and urine analysis must be made and recorded, and, if indicated, the patient must be referred to the special clinics for further study.

The attending surgeons have two operative clinics each during the week and they have two operating rooms at their disposal. Each attending surgeon has a follow-up clinic every week, which he must attend in person. Codman's "end result" card is used and a stenographer is in attendance. Uniform rules for the revisits and for the duration of observation of the various types of cases are in force.

A staff conference is held once a week throughout nine months of the year which the entire hospital staff is always expected to attend. These conferences last about one hour and the medical public is welcome. The order of procedure is as follows: Presentation by the pathologists of the pathological material of interest which has been obtained during the week; the gross and microscopical specimens are demonstrated, together with brief talks on the pathology. The casualties of the service are next called for. Each attending surgeon must report any deaths, infections, or complications occurring during the week in patients under his care, and an endeavor is made to locate the cause. The details as shown by the case histories, and the testimony of those concerned are carefully analysed in order that it may be determined, as far as possible, whether the fault lay with the doctor, the patient, the disease, or the hospital organization or equipment. A report on the analysis of the follow-up clinic of one of the attending surgeons is next made. Each of the four attending have such a clinic once a week, which they must attend in person, and once in four weeks they are required to make an analysis of the results of the cases they have seen since their previous report. This analysis must show the total number of cases seen in the clinic and the number of those which have previously been reported. The remainder which are to be reported are classified according to the results as successful, partially successful, and failures. The acid test for the determination of the result is whether the patient has been relieved of the symptoms for which she sought relief, and not whether the operative result is satisfactory to the surgeon. The successful cases are disregarded, while each partially successful case and failure must be analysed in detail and the reasons given for the classification. A free discussion is encouraged in order that the operating surgeon may have every opportunity to defend his position. Cases that may have been previously reported as successful which may later have become partially successful or failures, must be subsequently reported again with their revised classification. Next a report of some case of special interest is made by one of the attending surgeons in turn. Thus an opportunity is given to present case histories or to show patients, which have had successful results. Frequently a case presenting difficulties in diagnosis or treatment is shown and the advice of the conference is sought. Once each month the junior attending surgeons are required, in turn, to give a brief summary of the recent gynecological and obstetrical literature, or to give a report on any hospital or operative clinic they have visited. Such problems as may relate to technic, operating rooms, sterilizing rooms, and wards are brought forward for general discussion when necessary, in order that the various points of view may be obtained. A stenographer is present during the conferences who makes complete records of the proceedings, which are kept on file in the office of the chief surgeon.

During the last six months period the data taken from the clinical records of the gynecological department and brought before the staff for review (as disclosed in the monthly follow-up analyses which are required of each attending surgeon) showed that a total of 1,166 cases were reported. Five hundred and thirty-two of these had been previously presented to the conference and classified. Of the remaining 634 cases, four were non-operative and twenty-four were radium cases for malignancy and undetermined as to the result, leaving 606 operative cases. Of these, 487 were classified as successful in relieving the patients of symptoms for which relief was sought, 97 as partially successful, and 22 as failures. Therefore, the percentages in our operative cases were as follows: successful, 80 1/3 per cent; partially successful, 16 per cent; failures, 3 2/3 per cent.

In a period of nine months, in 1,388 operations in both clean and pus cases, 63 had infections in the operative wounds, or about 4½ per cent. In other words, we obtained 95½ per cent of primary union in the healing of wounds in all cases. The mortality for all cases in 1918 was 1.9 per cent, and in 1919 was the same. As an example of the effect of the reorganization on the follow-up clinics, the percentage of returns has increased over 100 per cent.

I think I may say it is the unanimous opinion of the staff that these conferences are of inestimable value and profit to all concerned and there can be no question but that they have produced a marked effect in improving the pre- and postoperative study of our patients, with the inevitable benefit to them. No man on the staff can afford to have careless work shown up in the strong light of the publicity and criticism of such conferences, and no man can object to a system which applies with equal force to every operator in the hospital. The interest in the meetings by the staff is very great. One of the members stated that it was the best "Medical Society" of all that he attends.

While standardization and simplification of routine hospital procedures have been established, the individuality and initiative of the members of the attending staff have not been hampered, and they have been encouraged to utilize to the utmost their ideas in research and technic.

All the staff, both seniors and juniors in every department, are expected to make some study as a contribution to the literature during the year. If a particular type of case is desired by any member of the staff for the purpose of clinical research, he may state his desire and object and such cases will be assigned to him in quantity sufficient for his purposes, but he must present his results for publication in the Annual Surgical Report of the hospital, which is made up of these scientific contributions. To facilitate this important work, I have established a library in the hospital with the latest editions of the standard text books, and periodicals on gynecology and obstetrics, through the generosity of the board of governors, and they have also provided the services of a medical artist.

The surgical report for 1919, recently published, contains twenty monographs contributed by the staff, and three theses by undergraduate, fourth-year students of the Cornell University Medical College, as part of their work at the hospital. Among the clinical research problems studied during the year from the hospital records published in this report, are studies on uterine curettage, ectopic gestation, uterine fibroids, salpingostomy, postoperative urinary retention, the relation of appendicitis to adnexal disease, and postoperative vomiting.

One of the most difficult problems of the nursing department of a hospital with a large attending staff, is the proper carrying out of the numerous and varied pre- and postoperative standing orders. These orders, which are kept on file in the wards, usually are compiled without any thought as to whether they conflict with the meal hours or other essential scheduled routine ward work. Their multiplicity and variance are so confusing as to greatly increase the chance of error, and with the constant rotation of pupil nurses, can never be satisfactorily enforced. The ideal plan is to have but one set of standardized orders which are as simple as is consistent with common sense, and which are adjusted to the time schedule of the ward routine. One set of orders means a saving of time and energy for the nurses and interns and reduces the chance of error to a minimum, with resulting benefit to the patients and economy to the hospital. They also greatly facilitate teaching. We have compiled and put in practice in the gynecological wards such a set of standardized orders, and after a thorough trial they have proved most satisfactory. We have also prepared a set of orders for use in the recovery ward. Simplicity and clearness were the objects aimed at in their compilation, and the judgment of the head nurses in charge of the wards was the guide as to their practicability, in the endeavor to make them as "fool-proof" as possible.

The technic of the operating rooms has also been standardized. The methods of hand sterilization have been systematized and made uniform, and the several steps of the procedures have been then typewritten, framed, and placed over each scrub-up basin for guidance, with a convenient sandglass to insure that the required time is spent in this important process. Likewise, the technic for the preparation of the fields of operation has been similarly systematized, and placed in each preparation room.

Simplification of procedure as accomplished by standardization of methods greatly facilitates the imparting of knowledge to the student in such a form, as to avoid confusion and complexity, and favors its retention. Consequently I have standardized the technic of the usual gynecological operations and I endeavor to carry out each step of the procedures in a uniform way in my clinics. Thus the interns and nurses rapidly learn the technic of each operation, and their value as assistants is proportionately increased. When the surgeon has no order or system in his method of operating, the patients' interests are jeopardized. I have had illustrations made of each step of these standardized operations and use the stereomotorgraph to show lantern slides of the same while executing them, so that the observers are enabled to follow each step accurately. I have standardized the arrangement on the operating trays of those instruments which are in most constant use. Each instrument on the tray must be kept in its proper location by the suture nurse

throughout the operation. When the operator takes one from the tray, she must substitute its duplicate at once, so that the surgeon always finds the same instrument in the same place, and confusion and waste of time is avoided. The upper part of the tray is used for the discard; the suture nurse watches the tray and not the operation, so that her duties are greatly simplified. It is, therefore, only necessary to ask for some special instrument. Lists of the instruments required for each type of operation have been made, so that there is an avoidance of wear and tear on a great number of unneeded ones which would otherwise have been unnecessarily prepared.

A description of the technic of each standardized operation is kept on file in the record room, so that in the dictation of the operator to the stenographer, much time and work is saved, as it is only necessary to give the nature of the operative procedures, and stating that the standard technic was used. If any deviations are necessary, owing to the pathological conditions present, the same are described in the dictation. This method of standardizing the technic of operations and instruments and dictation applies only to my clinic. The other surgeons are at liberty to use any operative technic that they desire, and they are free to choose what operative measures or treatment they deem best in their own clinics.

The need of a special department for the study of associated gastro-enterological conditions in gynecological cases was very evident and we have just established such a department with a complete, up-to-date equipment. I feel sure that the more complete diagnoses that this department will make possible will prove of inestimable benefit to our patients.

The establishment of a department of x-ray-therapy is also now under way, and it will be of especial value in treating certain gynecological conditions that are not amenable to operative procedures.

How best to solve the difficult problem of taking the private patient's history has been given careful consideration and we have now in force regulations that provide for the taking of all such histories by the resident gynecologist, unless objected to by the surgeon in charge or by the patient, in which case the surgeon must himself furnish the history for filing with the records of the case.

What I have just presented is but an outline of the general reorganization that we have been carrying out during the past eighteen months. So much yet remains to be done that I feel that we have only scratched the surface of our opportunities. Many problems need attention in the immediate future. The forms of our case histories and out-patient department records are under revision. The devising of a suitable obstetrical follow-up system is also in hand.

One of our greatest needs is properly qualified young men who desire to specialize in gynecology. The opportunity for those seeking to enter this field is unusual at this time. At the Woman's Hospital the path leading to a position on the attending staff is well blazed for the serious minded and capable man; and the entrance door is situated in the out-patient department and is wide open.

The reorganization and constructive work that we have been endeavoring to put in force has been no light task, and it would not have been possible to accomplish what we have were it not for the hearty support of the board of governors and the cooperation of the surgical staff. To them, my sincere thanks are due for their aid, and I am encouraged to hope for greater improvement in the future.

OHIO HOSPITALS TO GIVE ANNUAL REPORT

The Ohio State Department of Health has issued an annual report form to every hospital in the state on which to report its work during the year 1919. The form was adopted with the active cooperation of a committee of three hospital representatives of Ohio, the committee composed of Dr. A. R. Warner, Executive Secretary, The American Hospital Association, Dr. A. C. Bachmeyer, superintendent, Cincinnati General Hospital, and Dr. M. H. Cherrington, part owner of Cherrington Hospital, Logan, O. The report was accepted by the Department of Health's Hospital Bureau, and by the Ohio Hospital Association. A bill creating the Hospital Bureau Department of Health was passed at the last session of the Ohio legislature, and the bureau was empowered to investigate, study, and to require registration and reports from all Ohio hospitals.

THE OHIO VALLEY GENERAL BULLETIN

The Ohio Valley General Hospital, Wheeling, W. Va., publishes an interesting bi-monthly bulletin concerning the progress of the institution, for the information of its friends in the community and elsewhere. The bulletin is attractively gotten up, consisting of ten to fifteen pages, with a cover on which appears a picture of the hospital, the head of a pretty nurse, and the inscription "For the people—by the people. Guest house of the sick." The background of the cover appears in a different color for each issue, green, blue, lavender, or yellow. The bulletin is edited and published by the directors of the hospital association, and the expense of publication is defrayed by friends of the hospital.

Articles on subjects such as the Stores Department, with illustrations showing typical daily food requisitions, kitchen orders, and views of the storeroom, the School for Nurses, the Dietetic Department, the X-Ray and Laboratory Departments, have appeared in recent issues.

The MODERN HOSPITAL

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ARE HOSPITAL EMPLOYEES JUSTIFIED IN STRIKING?

THE orderlies employed in the hospitals in New York City have organized a local union which has sought and secured affiliation with the American Federation of Labor. This local union has demanded that the hospitals recognize it, abstain from employing non-union orderlies, and immediately grant a large increase in wages. This development is somewhat disconcerting, but scarcely to be regarded as altogether unexpected. Groups of nurses in England and also in America have formed unions as a means of promoting their economic and social welfare. Even members of the faculty of one of our leading theological seminaries have formed a labor union and affiliated with the American Federation of Labor. Hospitals are not monasteries, set apart from the general trend of the world's activities, but are a vital part of those activities and are bound to be influenced by the movements of the day. The employment problems in the hospital are basically much the same as the employment problems of industry and commerce. The formation of a union of hospital orderlies in these days of collective bargaining is, therefore, not greatly to be wondered at, nor is it to be deprecated. Hospital employees, as employees, cannot be classed apart, let us say, from the employees of hotels, which render somewhat similar service, and have the same right to organize for the advancement of their welfare.

Their welfare needs to be advanced. The wages of hospital employees are in many instances far from what they ought to be, and not infrequently their working conditions are atrocious. Trustees, and even superintendents, burdened with the task of raising funds, and often meeting with small success in their campaigns, are content to let hospital employees get along as best they can on inadequate wages. Yet hospital employees have no magical means of making one dollar, with a purchasing power reduced one-half, do the work of two.

But while we concede the right of hospital employees to organize for the advancement of their welfare, we do not think they are justified in using the strike as a means of attaining their ends. The strike is economically wasteful and ethically wrong. Destructive as are its results when used as an instrument of coercion in industrial disputes, influencing adversely every fiber of our industrial organism, its results, if used in disputes over labor conditions in hospitals, would, to put it mildly, be appalling. One does not need to possess an active imagination to realize this. Other means of settling wage and other disputes in hospitals can and must be found. They are being found in industry; the public will not long tolerate their not being discovered and applied in hospitals. The boys' and men's clothing industry has found an orderly means of adjusting disputes through its Joint National Council, formed by representatives of the manufacturers and the unions. The printing trades have found an orderly means for adjusting disputes through the International Joint Conference Council of the Allied Printing Trades. The employers and workers of printing firms which do from 70 to 75 per cent of the book, periodical, and job printing business of the United States have created legislative machinery designed to care for the affairs of this trade on a national scale in such a way as to eliminate the strike, with its chaos and anarchy. Similar tendencies may be seen in the national economic organization of the stove founders, and in Great Britain in the creation of the Whitley Councils, and the unofficial organization of basic industries.

Should the movement for the union of hospital employees spread far and wide, hospital statesmanship will have to cope with the situation much as industrial statesmanship is now doing, with increasing success, in the employment problems of industry. For the present, the situation may be

met locally in New York by the establishment of such working and living conditions among hospital employees as will make the strike unnecessary. The character of these working and living conditions should be determined not altogether by the hospitals, but, as in the case of the clothing, printing, and stove manufacturing industries, by a joint council composed of representatives both of the hospitals and of the union, in this case a union of hospital orderlies.

FINANCING THE COMMUNITY HOSPITAL

Not every one will agree with the proposals presented in Dr. Pettit's article on page 7 of this issue for handling the financial problems of our hospitals, particularly our small community hospitals. But what he says on this subject is stimulating and worth some serious thought. Although, historically, hospitals had their rise in charity and benevolence, we are now fast coming to place the emphasis more and more on health rather than charity in our institutions of healing. Some, therefore, like Dr. Pettit, would have hospitals devote all of their resources to the prevention of disease and the healing of sickness, unhampered by the burden of providing funds in one way or another to cover the cost of the care and treatment of their indigent patients. Dr. Pettit would not by any means deny such patients care and treatment in the hospital, but he would have the hospital and community so organized that all of the work done in the hospital would be paid for, if not by the patients, then by some other agency, be that agency the state or one of its political units, a lodge, a local church, or a charity organization society. In many small communities where the funds of both the hospital and the charity organization society are supplied by the same small coterie of charitably inclined individuals, the bills for the charity work of the community, whether they be incurred by the hospital or by the charity organization society would, we fear, be paid by the same individuals, but out of different pockets, so to speak.

A TOOTH MORE PRECIOUS THAN A DIAMOND

When Cervantes had Don Quixote exclaim after an unfortunate event in which he lost a number of teeth, "Alas, a tooth is more precious than a diamond," he was undoubtedly indulging in a humorous exaggeration; but, in the light of preventive medicine of today, we can hardly regard his exclamation as an exaggeration. Teeth are more precious than diamonds, and he would be a fool who would swap his thirty-two teeth for a like number of diamonds, whatever their carat.

Investigation shows that 90 per cent of our school children have one or more decayed teeth and that 20 per cent of all the teeth of school children are in a more or less serious state of decay. This is a grave national indictment in view of the progress that scientific medicine has made in recent years and in view of the fact that dental caries, its cause being well known, is theoretically preventable. When, however, hospitals, especially those for children, inaugurate clinics to care for the dental needs of their in and out-patients, we regard it as a matter of real encouragement.

The importance of the dental clinic in the hospital is becoming increasingly recognized. We earnestly hope that in the near future many forward looking hospitals, not yet equipped with dental clinics, will begin to lay their plans to install dental clinics, and that progress along this line of socialized medicine and hygiene, checked by the war and its tremendous expenses, will grow apace. Hospitals, like schools, can carry the work on wholesale and, therefore, at relatively less expense than it can be done by the private practitioners; for this reason they should make every effort to render this public service.

Some day—and let us hope the day will not long be deferred—we as a nation will spend the initial forty or fifty million dollars needed to put the teeth of our children in order and the additional thirty or forty millions annually to keep them in order. It will be one of the best investments the nation ever made. It will save many millions more and will add richly to our national health and efficiency.

DISHONEST MERCHANDISE

INDUSTRIAL dishonesty is to be condemned in any instance, but when it finds its way into the manufacture of clinical thermometers it is to be doubly condemned, and in no uncertain terms. Words fail us in the characterization of manufacturers who thus attempt to swell their profit by jeopardizing health, and even life itself.

That clinical thermometers faulty in workmanship and false in the records they give were being placed on the market in great quantities, was first brought to our attention during the war. Thousands of worthless thermometers were shipped by manufacturers to foreign countries, and when we entered the war similar worthless thermometers were offered to our Navy, our Army, and the American Red Cross. When this abominable business was discovered, France and

Great Britain passed laws prohibiting the importation of clinical thermometers that had not first passed official laboratory tests. Our Army and Navy and the American Red Cross in their turns made similar provisions. These laws, however, pertained only to military use and fought the evil at the point of consumption. It left it uncontrolled at its source—the point of manufacture.

We know of one state at least that has enacted laws that beard the lion in his own den and prohibit the manufacture and sale of clinical thermometers that fail to meet the standards established by the State Bureau of Standards. This is the state of Massachusetts.

And what is even more encouraging is that these laws have been vigilantly and vigorously enforced. The result is a decidedly improved situation. In several instances manufacturers who could not and would not correct their careless and criminal methods of manufacture have been denied the license to sell clinical thermometers in that state.

Reputable hospitals have always taken whatever steps lay in their power to insure the efficiency of the clinical thermometers they use. But the means of establishing the quality of a clinical thermometer is often inadequate. Hospitals generally should urge upon the legislatures of their several states the enactment of laws for the certification of clinical thermometers and the provision of adequate machinery of enforcement under energetic executive control.

Appointed Surgeon General

DR. HUGH S. CUMMING has received the appointment as Surgeon General of the United States Public Health Service, to succeed Dr. Rupert Blue.

Dr. Cumming was born at Hampton, Va., August 17, 1869. He was graduated in medicine from the University of Virginia in 1894. On May 25 of the same year he was commissioned as assistant surgeon, passed assistant surgeon five years later, attained promotion to surgeon March 15, 1911, of senior surgeon November 8, 1918, and was appointed Assistant Surgeon General March 6, 1919.

For a number of year Dr. Cumming was quarantine officer at Hampton Roads. Most of his work during his quarter of a century of service has been spent in quarantine work. At the time of his appointment he was in Naples, fighting typhus, and it will be some weeks before his work in that city, Constantinople, and Paris can be completed.

Dr. Cumming takes the position as chief executive of the United States Public Health Service at a time when the issues are more pressing and the work more exacting than ever before. The difficult tasks which the Department faces at this time include the rehabilitation of the thousands of soldiers who contracted tuberculosis during the Great War, and of the soldiers incapacitated mentally or suffering from nervous disorders as a result of their overseas experience. The ravages of the two succeeding influenza epidemics are to be combatted, and means evolved through research for the control of succeeding waves of this disease.

Preventive medicine is to be brought to the fore and the increasing demand of medical agencies for Federal leadership call for reorganization of the service to meet the standard of a new era in public health.

MORE THAN MEDICINE

Among the army recruits, a well-directed campaign against homesickness makes a "man" out of many a "boob." It makes good fighters also out of "boobs." The campaign of the army is not for sentimental reasons, but it is born of necessity, for the army needs fighters. The army knows that a stream of water will flow along a channel if it is directed into the channel. It knows that human nature is much like water in this particular. The right start of the soldier is the important thing.

When the recruit arrives at camp he is treated "like a man" and given a good meal. The daily routine of army life is explained to him and then he is kept busy. The entire program is designed to prevent homesickness, for homesickness causes

discontent, and discontent makes poor soldiers. A busy man is rarely homesick. The army, out of experience, knows this and plans accordingly.

Civil hospitals have much the same problem to meet. Here as well as in the army comes discontent, and discontent makes poor fighters. It makes poor fighters against disease. Do we plan accordingly? Nostalgia is often the real reason for the restless, complaining patient who does not do well, who does not fight disease well. In the business of fighting disease, mental tranquility is a big factor. Every doctor knows how worry can retard a cure and almost out of habit the doctor tells his patient not to worry. We all have seen the baby, to whom medicine was of no avail, pick up and gain when it got "mothering." A little of the same prescription benefits many grown-ups. But, as a matter of fact, in civil hospitals, aside from the brief instruction of "not to worry," little is done to prevent worry or homesickness or a habit of complaining. There is no campaign against these ailments.

The average patient stays at the hospital about seventeen days. For at least ten of these days his mind and hands are capable of being busy. Is the patient neglected if he is not busy? Is there a lesson for us in the experience of the army?

Is it worth while to occupy the patients' idle time with instruction? Would it "pay" to provide instruction sheets and to have recitations in the hospital on matters of personal hygiene, public health, and the duties of a citizen to the community? Would it be worth while to employ a teacher for patients to carry on this work? The problem belongs to psycho-therapy, which is inseparable from good medical care and good hospital service.

CULTIVATING THE READING HABIT

ONE of the foremost hospital superintendents of this country, in talking recently with us, quite unconsciously revealed what we believe to be one of the biggest elements in his success. He had acquired the habit of purposeful reading and sought, on every occasion, to make a practical application of the ideas that seemed to him would make for progress and efficiency. As he could find no time during the day to read, he invariably spent his evenings at it and seldom retired before midnight. Nor did he confine himself solely to current hospital literature. He read the better medical journals and general magazines as well as carefully selected general literature, devoting especial attention to economics and sociology.

We cite this superintendent, not because we wish to commend his practice of invariably keeping late hours, but because we wish to emphasize the necessity of cultivating sound habits of reading and study on the part of hospital superintendents as a means of keeping abreast of the times, and of bringing an enriched personality to their work.

The superintendent who depends wholly on his own limited experience and allows the details of his work so far to engross his attention as to leave no time for reading is bound to narrow his outlook, limit his usefulness, and stay the progress of his institution. But the superintendent who reads will be quick to sense the trend of the times and make, with profit, such changes and adjustments from time to time in the methods and scope of the work of his institution, as will keep it to the forefront of progress. He will often be saved the embarrassment of belated action and of entering upon ventures unwise, because untimely.

"Reading," indeed, "maketh a full man," and the superintendent who reads is usually the superintendent with a good stock of ideas for use in his own hospital. The reading of a single evening may carry a suggestion which, applied, saves the hospital a large sum of money or enables some piece of work to be done more efficiently.

Not the least advantage to be derived from this excellent habit is mental alertness. To read purposefully is to think actively and, in the midst of the multitude of problems that arise in the hospital daily, where is the superintendent that can dispose with alertness?

Finally, reading enables the superintendent not only to be *in* the world but *of* it. The well informed superintendent is a superintendent whose board of trustees will hold him in high esteem and whose society will be sought because it is worth while and stimulating. The war and the remarkable events that cluster about it and are emanating from it, have brought us in closer touch with peoples and countries the world over, and the superintendent needs to keep in touch with these developments, which have an influence, however slight, upon him and the work in which he is engaged.

Life hath no blessing like an earnest friend; than treasured wealth more precious, than the power of monarchs, and the people's loud applause.—Euripides.

He who has a thousand friends
Has not a friend to spare,
While he who has one enemy
Shall meet him everywhere.—Emerson.

We are most of us very lonely in this world; you who have any who love you, cling to them and thank God.—Thackeray.

INCREASING THE EFFICIENCY OF HOSPITAL ADMINISTRATION

By AARON WALDHEIM, President, Jewish Hospital, St. Louis, Mo.

While hospitals date back almost to the Middle Ages, no marked improvement, either in their building or operation, has been evident until comparatively recent years, about the middle of the last century.

From that time on, however, they have steadily progressed, both in construction and administration. The part they play today in the care of the sick and in the advancement of medical science depends entirely upon three principal qualifications: first, their efficiency; second, their equipment; third, their capacity. Of these three the first is by far of greatest importance, although I do not underestimate the value and need of the other two.

The state of efficiency depends entirely upon the organization in control of the hospital, while the board of directors, which has charge of the finances, is responsible for its equipment and capacity.

Hospital Organization

Hospital organization is constructed along lines similar to our own government. The three distinct bodies which control its destinies are: the board of directors, which is the legislative; the superintendent, who is the executive; and the medical, represented by the staff, in place of the judicial.

As I have just stated, these bodies are distinct, and, I regret to say, often remain so to the detriment of the institution. There is a lack of cooperation among them which is vitally necessary to thorough efficiency. Often we find that the needs of the medical department are not discussed with the superintendent or board. The board enacts measures without the advice of the staff or superintendent, or the superintendent comes to conclusions without consulting those directly interested.

To overcome this weakness in our own organization, the Jewish Hospital, and to bring about harmony of action, which is essential to the development of any institution, we organized an efficiency committee. This name, I am pleased to say, has not been a misnomer, and has added materially to the efficiency of the hospital. The committee is composed of three members of the board, three of the staff, and the superintendent. All matters of importance pertaining to the operation and needs of the hospital are referred to it. For instance, it passes upon all rules governing the house staff, the operating rooms, and the keeping of records. It considers the purchase of new equipment, charges for x-ray and pathological work; and, in fact, everything that tends toward the betterment of the hospital and its service. However, in order not to usurp any of the power of the board or staff, the committee acts only in an advisory capacity. It has no authority to carry its decision into effect. These decisions must be referred to the staff or board for final action, where they are almost always readily approved. The committee has harmonized the various interests in our hospital and has added materially to whatever advancement the hospital has achieved. Prompted by the success of this movement, we went a step further, and from time to time hold joint meetings of all the members of the staff and board of directors, together with the heads of the different departments of the hospital. These meetings have been most interesting and of great benefit to the hospital. I believe, too, that hospitals in the various communities should form an organization and hold meetings from time to time to interchange ideas, and thus establish unity of action in matters of local importance.

Importance of Discipline

Another important matter to be considered in the conduct of an efficient hospital is discipline. Discipline must be thorough, and must pervade the entire organization. It must apply to the visiting as well as to the house staff; to the graduate nurses as well as to the pupil nurses. Even the menial help must be subject to its strict though kindly enforcement, for there is nothing that so quickly renders an organization inefficient, as a lack of proper discipline. Its custodian is the superintendent, upon whose shoulders rests much that makes or unmakes an institution. The superintendent not only must maintain discipline, but must strictly and impartially enforce all rules, for laxity and partiality are microbes that strike at the very vitals of an organization. The superintendent must see to it that no preference is shown staff physicians over outside physicians, except as prescribed under the rules of the hospital; that favors are extended alike to friends and strangers, and equal privileges accorded to all.

Some time ago, a good friend of our institution asked the superintendent to give special care to a certain patient. Her reply was, "All our patients receive special care." This was the only proper answer that could have been given. It emphasized the fact that the institution was doing all it could for every one entrusted to its care; that it could do more for no one; that it would not do less for any one, and that the best it had to offer was ever at the service of all who entered its doors. I also recall that one of our directors, whose son was a patient in the hospital, came to me and asked to be allowed some special privileges on account of his connection with the hospital. I informed him that he should be the last one to make such a request; that if the directors themselves did not live up to the rules, how could he expect others to do so? I mention these incidents simply to illustrate the necessity of absolute impartiality in the conduct of a hospital. It elevates the standing of the institution and inspires confidence in all connected with the organization, as well as in the patients themselves. A hospital operated upon any other basis is undeserving of public patronage and support.

While those in charge of a hospital must be firm in its administration, at the same time they must also be kind and courteous to all with whom they come in contact. Kindness is not an indication of weakness. And especially must every courtesy be extended to patients. Some one should be delegated to call upon them from time to time to inquire as to their health and comfort and to see if they are receiving proper attention. Patients are sure to appreciate this attention and, in addition, it will afford the superintendent an opportunity of knowing and correcting evils of which it would be difficult to learn in any other way.

Strict Economy Aid to Efficiency

The practice of strict economy throughout an institution also adds to its efficiency. Inasmuch as the expenditures of most hospitals which are properly serving humanity are usually in excess of receipts, there must be a proper regard for economy and the elimination of waste, or deficits will climb and worries increase. However, economy must not be mistaken for parsimony, for parsimony is more injurious in the conduct of a hospital than waste itself.

Another matter which is vitally necessary to the proper operation and standardization of a hospital, is sufficient funds to carry on the work. New and modern equipment is constantly needed, additions and changes to buildings become necessary, and furnishings wear out and must be replaced. The sick poor within the wards must receive every care and attention, regardless of the expense it entails.

Furthermore, the mission of hospitals should no longer be confined to the care of the sick. Years ago those who dispensed charity aimed only to relieve distress; today their main purpose is to prevent poverty and distress. So, too, the time has come when hospitals must bend their efforts toward the prevention, as well as toward the cure of disease. To this end a social service department is of vital importance, and research work should be carried on to the fullest extent possible. Every new discovery in medicine and every advancement in surgery is a blessing to the human family. When this important branch of hospital work is more fully developed, I believe the public itself will become more interested in our institutions and will give them fuller support. This matter should be brought forcibly to the attention of the directors of our hospitals, most of whom are only passively interested in hospital work. I am sure it would awaken them to the wonderful possibilities that lie ahead in this line of work and secure their more active interest. How proud a hospital would feel if, through its own department, the discovery of some new cure or improved method of treating disease should emanate, and what satisfaction would be felt by those who gave to this work their active support.

Students Should Witness Operations

I also feel that hospitals should give every assistance to those in pursuit of medical knowledge. I know that a strong prejudice exists against students witnessing the operation of patients and profiting through their illness and misfortune. However, I believe if a campaign of enlightenment on this subject were inaugurated and the public were made to realize the great benefit to posterity through privileges of this kind, the vast resources of our hospitals for teaching purposes would no longer go to waste as they do in most of them today. These matters should be given earnest consideration, for until hospitals engage in such activities their mission to humanity cannot be considered as entirely fulfilled.

The intern, too, who is seeking to improve his knowledge of medicine, must be given every assistance in order that he may accomplish this purpose. Histories which have been written by him should be carefully scanned by the doctors attending the patients and discussed with him, and history classes should be held at least once a week.

Nor must we overlook the great part that hospitals play through their training schools for nurses. Here are developed those splendid Sisters of Mercy whose lives are devoted to the care of suffering humanity. The high standing of this organization has been attained through constant efforts of the hospital to improve this branch of service for which too much praise cannot be bestowed, for the trained nurse is indispensable to the practice of medicine. However, the number of young women entering our training schools today is not sufficient to meet the growing demand for trained nurses. Therefore every effort should be made to increase their number. This can be done to a large extent by affording to pupil nurses attractive and comfortable living quarters, and proper amusements and social activities.

In conclusion, I want to say that I sincerely hope the part hospitals play in the communities will ever increase and that their efforts will not be confined alone to those who seek care within their walls, but will be extended to benefit all humanity.

TRAINING FOR HOSPITAL SOCIAL SERVICE

By JOHN E. RANSOM, Superintendent, Michael Reese Dispensary, Chicago.*

Hardly a more serious problem confronts the hospitals of America today than that of obtaining an adequate number of adequately trained social workers. The fact that there are many hospitals in the land which are unaware of the existence of this problem adds to rather than diminishes its seriousness.

No more important question confronts hospital social workers as a group, or, may we say, as a profession, than that of working out a program of education which will give broad, and, at the same time, specific training to the hospital social workers of tomorrow, and which will give to hospital work such standing that it will come to be recognized as a profession and not as an occupation open to anyone who wishes to work at it.

There is today a dearth of well-trained and capable directors of social service departments and of other workers in those departments. This shortage is accentuated by the demands of the Red Cross and other organizations of national scope whose levies upon the medical social service field have been so heavy as to seriously handicap that service in many institutions. The number of social service departments in hospitals and dispensaries as well as the number of workers needed in already established departments is rapidly increasing. Many hospital authorities and members of the medical profession who have been uninterested, unfriendly, or antagonistic to social service are coming to see its value and to recognize it as essential to efficient medical service. The American Hospital Association has given official recognition to hospital social service by devoting one of the sections, into which its program is divided, to this phase of hospital work.

Resolutions Adopted

At the 1918 convention of that body the following resolution was adopted:

"*Resolved*, That the American Hospital Association express a recognition of a general need of a large number of women to supervise hospital social service work, who shall have the advantages of training in a university in preparation for such work; that the essential elements in such an education are (1) general educational, (2) medical, (3) sociologic; and that this work be so combined as to make a university course of reasonable length; and be it further

Resolved, That the executive secretary shall send copies of this resolution to such universities as do now give courses in philanthropy and sociology, and to any other universities contemplating the establishment of such courses."

Complying with this resolution copies of it with an accompanying letter were sent to a selected list of American and Canadian universities and colleges. Replies were received from twenty-one of these. Some merely acknowledged the receipt of the resolution. Most of them expressed interest in the problem. Some wrote of specific plans of work already in operation or to be inaugurated.

*Read at the Twenty-first Annual Convention of the American Hospital Association, Cincinnati, Ohio, September 8-12, 1919.

A professor of social economics in a western university wrote in part as follows:

"I was very glad indeed to note the tenor of this resolution. In this university we have for some time worked toward a course which should train women in hospital social service work. At the present time, in cooperation with the superintendent of our University Hospital, we are at work upon a more definite scheme of education to cover the points named in your resolution."

Hospital Social Service Courses

The Pennsylvania School of Social Service, the Boston School of Social Work, and Smith College gave brief descriptions of the courses they offer in preparation for hospital social service.

In the opinon of the writer, Miss Kingsbury, professor of social economy and social research in Bryn Mawr College, summarized the problem most admirably and suggested its solution. "We are giving at this College," says Miss Kingsbury, "specialized work relating to hospital social service along the lines you suggested except the medical courses. . . . I believe that some arrangement should be made between such a department as ours and the medical colleges so that the proper kind of medical training and nursing training should be given to the student preparing for hospital social service. So far, we have given the sociological and technical courses (giving the student practice in hospital social service departments in Philadelphia) and probably as satisfactorily as anywhere else, but personally I do not feel satisfied with this course and believe that only by some cooperation with the medical colleges and hospitals can we hope to attain effective training.

Courses Given in Universities

As already mentioned there are two or three schools of social work which in cooperation with hospitals and dispensaries are offering courses in preparation for hospital social service. Their work is the best we have today and as pioneer work in this field is of great value. The resolution called for a more comprehensive educational program, a program, however, which it seems to the writer could best be carried out in large universities having departments of sociology affording both academic and clinical or field work training and having medical schools with hospitals and dispensaries which they control. There are a number of such universities in this country. Courses could be developed in the medical school whose purpose would be to give such knowledge of medical problems and such familiarity with medical terminology as will fit the worker for intelligent cooperation with the medical staff with which she will later work. Such courses, we believe, should be worked out especially to meet the needs of the pupil social worker rather than combined with the regular curriculum of the training school for nurses. Nursing and hospital social service are or should be two separate and distinct fields, each calling for workers especially trained for the work in those fields.

Sociological Courses

The sociological courses should aim to give the student familiarity with the underlying principles of human relationships, community organization, and the like, and a general knowledge of the field of social work. Supervised field work not only in medical social service but also with non-medical agencies should form a part of such curriculum. Briefly, the general educational part of the hospital social worker's training should be such as to give background and perspective for the special work she will have to do.

The Social Service Department

Up to the present time hospital social service has of necessity been largely case work. Case work is and must continue to be a very vital part of the social worker's job, but too frequently the cases are so many or so baffling or so something else that we cannot see or have no time or energy left to search for the problems underlying those cases, much less to help work out means for their solution. Thus it is that often the social service department never gets to work at some of the important phases of its job. It really ought to be a force making for the socialization of the hospital, for hospitals even in those innermost parts of their beings which we call boards of trustees, medical staff, and hospital executives must come to realize that the service they are called to render is social service in the fullest sense of that term if the hospital is to fulfill its function in the community which supports it. The social worker with vision, tact, and perserverance can do much toward bringing her hospital to this point of view. The social service department should not be a raisin in the loaf, but rather yeast. When the community relationships of the hospital are better understood and developed, the work of the medical institution will in large measure be part of an organized program for general social betterment. The service of the physician, of the hospital, of the dispensary, will not be an isolated and hence often incomplete and perhaps unsuccessful effort, but will make its full contribution because properly articulated with that of other agencies of the community each performing its special part of a complex task.

In the development of hospital community relationships, what an opportunity and responsibility will lie with hospital social service. Are we not all agreed that for the work that lies ahead and at hand for hospital social workers, there is needed the best training obtainable?

UNIVERSITY FACES QUESTION OF HOSPITAL EXPANSION

That the time has come when the university must face decisively the question of hospital expansion in the medical school is the poinion of Dr. Burton, who recently resigned as president of the University of Minnesota to become president of the University of Michigan, expressed in his report for the year ending July 30, 1919, recently made public. He says that experience with full time teaching has shown some interesting results; that any plan which entirely prevents a clinical professor in the Medical School from practising his profession is unwise; and that plans must be developed, and facilities must be provided so that a member of the medical faculty may give his chief time and interest to his educational work, and still have opportunity for a limited amount of private and consulting practice.

In order to have full time clinical teachers, hospitals must be provided in which private patients of the members of the staff together with per diem patients can be cared for. Because of the adoption of a comprehensive building plan, the state of Minnesota cannot be expected to provide hospitals for private patients even for members of the staff; therefore, by the very nature of the problem this type of hospital expansion must be provided for by private gifts.

He advocated a campaign to raise from a half to three-

quarters of a million dollars for hospital expansion with adequate housing for nurses, and care for administrative and service features. Such a hospital would be self-supporting and would make possible the carrying forward of plans already adopted in the University of Minnesota. It would hasten the development of a diagnostic clinic, and all classes of patients would receive the best of care.

MAKING HOSPITALS FIREPROOF BY USE OF AUTOMATIC FIRE ALARMS

The thoroughly modern hospital is in the so-called "fireproof" class. Helpless patients are encouraged to believe they need fear no harm from fire. Walls of brick, concrete and steel, doors of metal, windows of fire resisting glass,—its every physical part is constructed with the one idea of making the structure safe.

But is it safe? Are those patients really secure against the fire fiend? How about the highly inflammable contents? What is there to prevent those from burning?

Men who have made a study of fire risks in all phases say it is the contents of any building that present the grave problem to fire underwriters. There lies the risk. Within the building some means must be provided to eliminate, or reduce, the fire risk to a minimum, if a hospital is to meet the requirements of humanity.

In providing the machinery for this adequate protection necessary for the modern hospital, the human element must be taken out of consideration. It has been proved many times that in a crisis mankind is fallible. The keenest, most conscientious watchman is only human. He cannot be in all parts of a great building at the same time. Neither is it practicable to have enough watchmen to guard every room and closet in a large hospital.

Discovering Source of Blaze

Suppose fire breaks out in some part of a great building. The discovery of smoke in the halls or other rooms some time later causes a search of perhaps a dozen rooms before the source of the blaze is located. In the meantime the fire has gained great headway. The tinder-like contents of the room by this time are a mass of flames.

The fire breaks through the room in which it started. The halls and other rooms by this time are filled with stifling smoke. There are not enough attendants to remove the helpless patients. Even though the fire is brought under control before the entire building is a roaring furnace, many deaths may have been caused by the smoke in distant rooms.

This fire, like every other, was small in the beginning. A bucket of water or a hand fire extinguisher at the start would have prevented the disaster. With definite knowledge immediately that fire had broken out in that certain room, there would have been no delay in discovering and extinguishing it. There would have been no previous moments lost between the time smoke gave the alarm and the time the exact location of the blaze was discovered.

How to eliminate this hit-or-miss way of fire discovery has been a serious problem not only to hospital managements but to owners of every sort of building. But this problem has been solved at last. Infallible devices have been perfected that not only eliminate the human element in fire discovery but really exercise an almost uncanny faculty for instantly sounding the alarm and indicating the exact location of the fire. To hospital managers this assertion seems almost beyond belief. Yet it is a fact that such devices have been perfected and have been in use for years in some of the largest hospitals in the country as well as in other buildings of every description.

Instant Alarm Automatic

One system of fire protection actually "feels" the fire the instant it starts. This "feeling" is transmitted quicker than thought to a central alarm box and annunciator. The indicator shows exactly where the fire has started. There is no lost time or lost motion at the start. The method by which this mechanism operates is simple. Around each room to be protected runs a fine copper tube 3/40 of an inch in diameter—about the size of a tiny wire. This tube connects with a diaphragm, sensitive to changes of the air pressure in the tube. Through the diaphragm the impulse is transmitted to the gongs and indicators that show exactly where the fire has started.

An open blaze immediately raises the temperature of the air in the room. The heated air rises and coming in contact with the copper tube expands the air within it and this impulse is transmitted to the sensitive diaphragm in the very minute of the outbreak of flames.

The expansion of the air in the tube is positive and almost instantaneous. There is no guess work. The principle on which this device works is as certain as the rising of the sun.

There are practically no limitations to the uses to which this device can be put. These tubes can be placed in any room or compartment where protection against fire is desired. The alarm can be transmitted to gongs placed anywhere and in addition can sound the alarm and indicate the location of the fire in any central fire station. Also indicators within the building can be attached to show at once in which room or compartment the blaze has developed. The fire discovers itself and sends for its executioner.

False Alarms Eliminated

Although this device seems more than human in eliminating the uncertain human element, it is distinctly human in that it is able to discriminate between real fires and ordinary changes in temperature. Cold storage plants and boiler rooms in the same building can be protected. Neither is a drafty hallway in which the temperature is changing constantly a stumbling block. Safety valves that provide for ordinary changes of air pressures are provided, so that false alarms are eliminated.

No matter how obscure the place in which fire breaks out, the flames are discovered and reported at once. The mechanism always is open to inspection and can be tested at any moment day or night within a few seconds. There is no guess work; its action is positive.

In some cities building laws require that automatic fire alarms also have the manual feature so that watchmen can guard them and be sure they are working. This additional feature can be obtained in automatic alarm systems. A watchman in a few moments can test the entire fire-finding machinery of a whole building from the main halls to the most obscure room.

The fine copper tube that "feels" the fire is placed along picture molding or in any out-of-sight place so that the walls or furnishings of the most beautiful rooms or apartments are not marred or disturbed.

Used During War

The United States Government installed automatic alarm devices in 3,000 buildings during the war, including hospitals, supply depots, and other buildings housing multitudes of human lives and millions in precious materials.

Industrial plants, steamships, department stores, cold storage plants, in fact, buildings of every kind throughout the country, are now protected by automatic fire detecting machines.

These devices are always "on the job." No matter when or where fire breaks out sensitive "feelers" detect it and immediately report it. That's why it is considered invaluable for the adequate protection of the precious lives of patients in modern hospitals who are dependent on others for their safety.

METHOD OF PROCURING TAX FREE ALCOHOL GREATLY SIMPLIFIED

Under Internal Revenue Regulation No. 61, the method of procuring alcohol, free of tax, under title 3 of the National Prohibition Act, for use in hospitals and sanitariums, has been greatly simplified, and the purposes for which the alcohol may be used have been extended.

In order to take advantage of the new regulation, an application, addressed to the U. S. Internal Revenue, Treasury Department, must be made in quadruplicate on what is known as form 1447 for the withdrawal of alcohol, free of tax. When the hospital received this application form, on which the Internal Revenue Commissioner has placed a permit number, they will make application on what is known as form 1449 for a permit to procure alcohol, free of tax. This application is to be signed by the principal of the bond which the hospital is required to give. The Collector will then issue a permit to the institution on form 1450 for the quantity of alcohol covered by the bond of the applicant. After the permit is received it is sent to the bonded warehouse from which tax free alcohol is to be withdrawn and the quantities shipped are entered on the permit. As soon as the quantity approximates the maximum quantity called for on the permit, the holder of the permit certifies on this form as to the quantity of alcohol remaining on hand or in transit and returns form 1450 to the Internal Revenue Collector for renewal.

The application for the withdrawal of alcohol made on form 1447 must show under the proper headings the specific purposes for which the alcohol is to be used.

At the time of making the formal application, a bond known as form 1448 must be executed in duplicate in a penal sum sufficient to cover double the Internal Revenue tax on all alcohol which will at any time be on hand, in transit or unaccounted for and in no case less than $1,000 or more than $100,000.

Incorporated hospitals must file certified copies of their articles of incorporation, copies of the minutes in duplicate showing the election of officers, and two copies of the resolution authorizing one or more of such officers to sign Government papers on behalf of the corporation.

It will no longer be necessary to medicate the alcohol when used for antiseptic purposes in general, as heretofore required.

State institutions are not required to furnish form 1449 to the Internal Revenue Collector to obtain the permit known as form 1450. This has all been consolidated in the form of application known as 1444.

All permit holders are required to file a monthly return of tax free alcohol received and used during each month. This return will be of form 1451 and will be made in triplicate, one copy to be held by the permit holder and the other two copies to be forwarded to the Collector of the district.

Under Regulation 61, it will no longer be necessary for the bond and application to be signed by the president of the hospital. In the case of incorporated institutions, the application and bond may be signed by any officer duly authorized to sign and in other cases by any individual for the institution.

GENERAL HOSPITAL PLAN FOR CLEVELAND

By C. K. MATSON, Cleveland, Ohio.

Preliminary outlines of the hospital plan for Cleveland were given recently by the director of the Cleveland Hospital and Health Survey, Dr. Haven Emerson, of New York, at the annual meeting of the Cleveland Hospital Council under which the survey is being made.

Dr. Emerson endorsed the university group plan of hospitals as a teaching center for Cleveland. This plan includes facilities for general hospital beds, for maternity service, and for babies and children. Taken in connection with the City Hospital it should be ample for all University teaching purposes.

Dr. Emerson said: "We picture the University control of hospital beds as of three kinds:

"(1) This University group under their absolute control and direction.

"(2) The control of the great majority of the beds, if not all, at the City Hospital, under the formal agreement with the Director of Public Welfare which gives the University the privilege of nominating the attending staff.

"(3) Its informal relation with other hospitals where the University finds teaching facilities in the hands of particularly well-qualified physicians and surgeons."

Speaking for the Survey, Dr. Emerson endorsed the plan for the enlargement of City Hospital, which is to be put before the voters in Cleveland in April, as follows:

"We endorse the plan of the Director of Public Welfare for an extension of the City Hospital's facilities at its present site up to a total of 1,200 beds to meet the needs of those unable to pay any part of the cost for whom there are not now beds in the privately endowed hospitals. With these increases of hospitalization and increases in other institutions proposed the city will approximate the provision of five beds per thousand of population which is recognized as the minimum provision for a metropolitan community.

"There is no institution in Cleveland that is not directly interested for its own sake in having adequate provision at the City Hospital for dependent sick, for cases of communicable disease, for chronic and convalescent cases, tuberculosis, and other cases which it is unable to accommodate itself. It behooves every hospital management to make it its business to see that the City Hospital is extended so that it may relieve the private hospital of an intolerable burden."

In constructive criticism of the present staff organization of hospitals, Dr. Emerson said:

"In view of the testimony received from the medical profession as a whole we are prepared to recommend a more democratic use of existing hospital facilities and suggest that in all general hospitals, except those used for teaching purposes mainly, a certain number of beds should be assigned for the use of non-staff physicians and surgeons, the outside physicians to whom this privilege is extended, being obliged to comply with standards of records, diagnostic measures and treatment, as well as collection of fees which would be established by the members of the responsible attending staff. The exclusive priv-

ileges now so generally enjoyed by staff physicians are in part due to the inadequate provision of general hospital beds, but are also due in part to the policy of hospitals to give preference in the use of their beds to a limited group of physicians on their staffs. Now that the public has assumed the burden of supporting the hospitals by a voluntary annual taxation, it behooves the hospital management to see that the public funds are administered in a democratic manner for the sake of public service without any taint of exploitation for the use of favored medical groups.

"It is suggested that the organizations of hospitals be in general modified to provide for representation of dispensary physicians, for the physicians having provision in the hospital but who are not members of the staff, and for the nursing profession and social workers in the hospital, who serve as an important medium of contact with the public who are receiving service."

Reports on children's and tuberculosis work are now about completed. Dr. Donald B. Armstrong of Framingham, Mass., is in charge of the study of tuberculosis.

The Hospital and Health Survey is receiving its authority from a committee appointed by the president of the Hospital Council which has direct supervision of the work. It has as its secretary, Mr. Howell Wright, the executive secretary of the Hospital Council. The Cleveland Community Fund made the provision of $50,000 for carrying on the Survey, and it will probably facilitate the carrying out of the Survey's recommendations.

THE CONVALESCENT HOME AS A PREVENTORIUM

By FRED BRUSH, M.D., Medical Director, the Burke Foundation for Convalescents, White Plains, N. Y.

In the after-war reorganization of its activities, and those of its three hundred sources of patients, the Burke Foundation for Convalescents at White Plains, N. Y., with 300 beds, is again endeavoring to do more in the prevention of disease and disability. The following poster has been gladly accepted and placed in the principal hospitals and dispensaries of New York:

PREVENTIVE CONVALESCENCE

The Burke Foundation wishes to give a larger proportion of Preventive Recuperations.

Send subnormal and failing persons before they break down.

The selection of these patients must devolve mainly upon the Dispensaries. Considerable organized effort and health-education will be needed to bring increase in this desirable cooperation.

Applications are made to the Foundation's City Office (preferably through your Social Service Departments) by telephone to 71 *Plaza.*

* * * *

Persons with heart disease showing fatigue and irritability, and those suffering with nerve fatigue, over work, discouragement, malnutrition, possible early hyperthyroidism, pre-tubercular conditions and the like are desired increasingly for general upbuilding, which the country institution can so well accomplish.

Industrial corporations, department stores, employment and other agencies passing large numbers of people, are expected to supplement the dispensaries and welfare organizations in choosing and sending these patients, which, during the past four years, have averaged less than six per cent of the total.

Patients definitely requiring operations and sent out for preparatory upbuilding have been generally disappointing. Apparently the apprehension, plus the undermining condition calling for the operation, are the main counteractive factors; and we have come to discourage such residence in the convalescent group. "Get your operation, and then come out to us soon," has proved to be sound advice.

SPECIAL LIBRARY CENSUS

At a time when the government is counting up its inhabitants, the Special Libraries Association is enumerating the special library collections of the country, because there does not exist at present an adequate directory of special libraries.

During the World War, when army camps and military centers were furnished with libraries for research and educational work, the men detailed to look up information for the government were hampered by the lack of a satisfactory list of information centers which they might call upon for emergency assistance. Time and again army men could have used a directory of institutions or corporations having special information which they would permit them to consult, had such a publication been in existence.

Mr. Business Man, do you realize what it means not to have a directory of manufacturers at a time when you wish to purchase a particular machine—and to have no other way to go about it? Your librarian is in just such a position when he or she is investigating a particular subject. Would it not be simpler if he or she knew of another library that had specialized on subjects of that type, and which had probably gone over the same ground.

In the spirit of co-operation, and in order to list the special information sources of the country, the Special Libraries Association—the national body of special librarians—submits the following questions and respectfully asks you to take the trouble to answer them. When compiled, directory will not be used as a mailing list for advertisers, but merely for the purpose stated, viz., to have in a central place, a record of the special information sources of the country.

A special library has been defined as—"A good working collection of information either upon a specific subject or field of activity; it may consist of general or even limited material serving the interests of a special clientele; and preferably in charge of a specialist trained in the use and application of the particular material."

If your library comes within the above qualifications the Special Libraries Association will appreciate the following information from you:

(1) Name of institution or company.
(2) Name by which library is known.
(3) Name of librarian or custodian.
(4) Can it be classified as any of the following: financial; business; legal; engineering or technical; institutional; municipal; reference; agricultural?
(5) If not, how can it be classified?
(6) Does it serve a special clientele?
(7) Would your librarian be willing to assist other special libraries to a reasonable extent?

The above data should be sent to William F. Jacob, chairman, Library Census Committee, care of General Electric Company, Schenectady, N. Y., who will be glad to answer any questions relating thereto.

A bore is a man who persists in talking about himself, when you want to talk about yourself.—Bishop Selwyn.

ST. LUKE'S HOSPITAL OF BETHLEHEM, PA., REORGANIZES

The reorganization plan based on the recommendations of Drs. Goldwater and McCrae, recently adopted by the St. Luke's Hospital of Bethlehem, Pa., went into effect February 15. This plan contemplates the extension to the whole community, of the hospital's ministry of healing. The functions of the hospital are defined as the care of the sick in accordance with the most scientific methods of diagnosis, and the advancement of medical science and art by the controlled observation of groups of cases by qualified men.

To accomplish these aims the plan provides for a graded staff organization, and embodies, among others, the following important features:

The clinical services of the hospital will embrace departments of internal medicine and surgery, and as many of the recognized special branches of medicine and surgery as the capacity of the hospital and the availability of competent men will permit;

Parallel with the clinical departments, corresponding groups of dispensary departments, with the cooperation of an efficient laboratory, will be established;

There will be one head, whose authority is continuous, for each clinical service, and an adjunct staff of one or more assistants who shall be graded;

The hospital will be divided into two departments, one consisting of classified and graded ward service devoted to charitable and scientific work, and the other of a service for private pay patients;

Private patient service will be accessible to the reputable physicians in the community, who will constitute the auxiliary staff; and ward service will be administered only by the hospital staff;

Appointments shall continue to be made exclusively by the Board of Trustees, and no appointments shall be for a period of more than two years;

There shall be a Joint Conference Committee to determine all questions of eligibility, and to draw up lists of persons eligible for such positions as may be vacant.

The Medical Board will be made up of the heads of clinical departments, the head of the pathological laboratory, the radiologist, two delegates from the adjunct staff, and three delegates from the auxiliary staff;

The heads of clinical departments will hold equal hospital rank and will serve without pay. The right, however, is reserved to the Board of Trustees to pay a salary to any staff member when the desired grade of service cannot otherwise be obtained;

Clinical conferences will be held monthly or bi-monthly, under the direction of a committee on education, and will be open without restriction to members of the medical profession;

There will be no interference by hospital authorities between private patients and their attending physicians and surgeons. However, the right is reserved to private patients to appeal to the hospital to investigate alleged overcharges;

There shall be an approved technique in such services as obstetrics and surgery which every physician will be obliged to follow; and none shall attempt to perform any operation or special service which his previous training and experience, in the opinion of the chief of the particular department, have not fitted him to do.

Such is the use and noble end of friendship,
To bear a part in every storm of fate,
And, by dividing, make the lighter weight.—Higgins.

DR. ELMER E SOUTHARD OF HARVARD DIES OF PNEUMONIA

Dr. Elmer Ernest Southard of Cambridge, Mass., assistant professor of psychology at Harvard University and Bullard professor of neuropathology at the Harvard Medical School, and an eminent psychiatrist, died of pneumonia, February 8, at the Hotel Prince George, New York City.

Born in Boston, July 28, 1876, Dr. Southard attended Harvard University, receiving his A.B. degree in 1897; his M.D. degree in 1901; and an A.M. degree in 1902. He also attended Sneckberg Institute at Frankfort and the University of Heidelberg in 1902. He received the honorary degree of Doctor of Science from George Washington University in 1917.

Just before his departure and also upon his return from abroad he was an intern and assistant in pathology in the Boston City Hospital, and was later visiting pathologist in the same institution. In 1904 he became instructor of neuropathology and was an assistant professor in the Harvard Medical School.

Dr. Southard was made Bullard professor in the Harvard Medical School in 1909. From 1903 to 1909 he had been assistant physician and pathologist in Danver's State Hospital for the Insane, and since 1909 was pathologist to the Massachusetts Commission on Mental Diseases. Since 1912 he had been director of the Boston Psychopathic Hospital, and at the time of his death was a director of the Massachusetts Psychiatric Institution at Boston.

Dr. Southard was assistant editor of the *Journal of Nervous and Mental Diseases*, *The Psychiatric Bulletin*, and *The Journal of Clinic and Laboratory Medicine*. Among his books were "Neurosyphilis," written in collaboration with Dr. H. V. Solomon; "Shell Shock and Neuropsychiatry," and the "Weekly Research Papers," which were written in collaboration with Dr. H. E. Fernold. He contributed to many periodicals and published an account of his researches at the Danvers State Hospital for the Insane. During the war he was a Major in the Chemical Warfare Service and also chairman of the Committee on Psychiatry and Neurology of the National Research Council.

In addition to being a director of the Bedford Hills Laboratory Bureau of Social Hygiene, Dr. Southard was a member of the American Academy of Arts and Sciences, the Association of American Physicians, the Massachusetts Medical Society, the American Neurology Association, the American Association of Pathologists, the Society of Experimental Biology, the American Psychopathol Association, the New England Psychiatric Society, the Boston Society of Psychiatry and Neurology, the National Epilepsy Association, and the American Genetic Association. He was formerly president of the American Medico-Psychological Association, and at the time of his death was president of the Boston Society of Psychiatry and Neurology.

He is survived by his widow, Dr. Mabel Austin Southard, a lecturer at Wellesley College, his mother, Mrs. Martin Southard of Boston, two sons, Austin and Ordway, and a daughter, Anne.

In the name of all you hope to know, cling close to all you know already.—Phillips Brooks.

Meetings, Conventions and Conferences

AMERICAN CONFERENCE ON HOSPITAL SERVICE MEETS AT CHICAGO

Little was accomplished at the meeting of the American Conference on Hospital Service which was held at the Congress Hotel, Chicago, on Wednesday afternoon, March 3rd. The Conference was scheduled to hold meetings on both Wednesday and Thursday, March 3rd and 4th, but owing to belated preparations and the illness of Dr. Andrew R. Warner, the vice-president, only one session was held on Wednesday afternoon. Dr. Alexander Lambert, president of the American Medical Association, presided.

It was decided to hold the next meeting at a conference in conjunction with the next annual meeting of the American Hospital Association in Montreal, October 4th to 8th, 1920, at which time it is hoped that the four committees thus far appointed would have formulated definite lines of action.

Dr. Harry E. Mock, the treasurer of the Conference, read the names of the committeemen thus far appointed to the committees which were suggested at the first meeting of the Conference held in Cincinnati in September, 1919. They follow—

Committee on Interne Problem

John Baldy, Federation of State Medical Boards, Chicago.

Dr. Guy M. Cushing, Federation of State Medical Boards, Chicago.

Lieut.-Col. L. J. Owen, Medical Department, United States Army.

Bena M. Henderson, Children's Memorial Hospital, Chicago; National League for Nursing Education.

Rev. P. H. Mahan, Loyola Medical School, Chicago.

Wilbur Post, M.D., Chicago, Catholic Hospital Association.

E. S. Gilmore, superintendent Wesley Hospital, Chicago.

Miss Edna G. Henry, Social Service Department, Robert W. Long Hospital, Indianapolis, Ind.; American Association of Hospital Social Workers.

Committee on Nursing Problem

Chairman, Miss Mary C. Wheeler, superintendent, Illinois Training School for Nurses.

Col. Edward D. Kramer, Medical Department, U. S. A., Washington, D. C.

Miss Louise M. Powell, N. L. N. E., University Hospital, Minneapolis, Minn.

Father Bourke, Ann Arbor, Mich.

Dr. Louise H. Burlingham, Barnes Hospital, St. Louis, Mo.

Miss Eleanor Thompson, Illinois Mental Hygiene Society, Hull House, Chicago.

Miss Antoinette Cannon, National Social Service, University of Pennsylvania Hospital, Philadelphia, Pa.

Committee on Professional Service and Records

Col. William N. Bishhan, Medical Department, United States Army.

Miss Mary C. Wheeler, superintendent, Illinois Training School for Nurses.

B. F. McGrath, Milwaukee, Wis., Catholic Hospital Association.

Dr. Clarence Selby, Toledo, Ohio.

Asa S. Bacon, superintendent Presbyterian Hospital, Chicago.

Miss Edna G. Henry, American Association of Hospital Social Workers.

Committee on Medical Aspects of Social Insurance

Dr. Watkins, University of Cincinnati.

Miss Minnie Ahrens, Chicago; American Nurses' Association.

Miss Elenora Thompson, Hull House, Chicago; Illinois Mental Hygiene Association.

The Rev. Father Maurice F. Griffin, Youngstown, O.; Catholic Hospital Association.

Miss Edna Foley, Assistant Managing Officer, Chicago State Hospital.

Miss Antoinette Cannon, Head Worker, Social Service Department, University of Pennsylvania Hospital, Philadelphia, Pa.

Following the announcement of these committees, correspondence between Mrs. R. W. Lovell of Boston and Dr. Arthur D. Bevan on the shortage of nurses was read. In the absence of any definite schedule of business this subject offered the Conference an interesting topic of discussion and the rest of the afternoon was devoted to it.

The trustees of the Conference met on Tuesday morning, March 4, and appointed a Committee to canvass the situation for a president. The trustees also decided to ask each of the component organizations to present a report of its work during the past year and a statement of what it regards as its special function, broadly speaking, in improving hospital service. These reports will be presented at the next meeting of the Conference in Montreal, and will be used as a foundation upon which to proceed further with the formulation of plans and policies.

THE NATIONAL TUBERCULOSIS ASSOCIATION

The annual meeting of the National Tuberculosis Association, which is to take place in St. Louis from April 22 to 24, 1920, promises a program of unusual interest and helpfulness. The chairmen of the several sections are as follows: Clinical Section, Dr. George E. Dock,

professor of medicine at Washington University, St. Louis; Pathological Section, Dr. Eugene Opie, professor of pathology at Washington University, St. Louis; Sociological Section, Dr. H. W. Hill, executive secretary of the Minnesota Public Health Association, and president of the National Conference of Tuberculosis Secretaries; Nursing Section, temporary appointment, Miss Edna L. Foley, superintendent of the Chicago Visiting Nurse Association. The chairman of the Advisory Council is Dr. Allen W. Freeman, secretary of the State Board of Health of Ohio.

CONFERENCE ON TRAINING OF HOSPITAL EXECUTIVES

A Conference on the Training of Hospital Superintendents was called by the Rockefeller Foundation, February 27, 1920, in New York for the purpose of considering the question of training hospital superintendents for the country.

There were present at the meeting about fifty representatives from the leading hospitals and medical schools of the country who discussed freely the problems involved.

As a result of the Conference, the representatives present resolved themselves into a voting committee and voted to ask the Rockefeller Foundation to appoint a special committee to consider the problem of the training of superintendents in all its aspects and make a report. President Vincent for the Rockefeller Foundation accepted the trust and announced that a committee would be named at an early date.

The need for training hospital superintendents arises in the demand for able hospital administrators which demand it appears can no longer be adequately met through existing methods of training. The increase in numbers of hospitals, on the one hand, and the new interest in medical administrative work growing out of war experience, on the other, have accentuated the need of considering the training of superintendents who will uphold and improve hospital administrative standards.

A recent survey by the American Medical Association gives a total of 6,440 hospitals having a capacity of 10 or more beds in the United States. Of this number 4,927 were hospitals of less than 100 beds; 817 were hospitals of from 100 to 200 beds; 447 were hospitals of from 200 to 500 beds; and 277 had over 500 beds.

Hospital superintendents may be grouped according to previous training as (1) medical superintendents, (2) lay superintendents or administrators and (3) nurse superintendents.

Specific training for hospital administration has been given in two ways: (a) through the apprenticeship method, by assistantship or experience (this comprises nearly the entire present training of administrators); and (b) courses given as optionals or to selected pupils in a number of nurse training schools, which, while embodying some theoretical work, have consisted largely of observation and practice. Distinct courses for training in hospital administration have been initiated in a very few instances.

In the Conference, the committee discussed principally the following questions:

1. Under what auspices can such instruction best be given—university, hospital, special school? (Possible advantage of affiliation of course with training school for nurses—with school of public health).
2. How can affiliation for instruction be secured with related branches—medical, public health, legal, engineering, social service?
3. What would be the value and the feasibility of short special courses or extension courses?
4. What training in general administrative procedure can be furnished?
5. What subjects should business management comprise in a proposed course for hospital administrators—accounting, purchasing, engineering, and the like?
6. Is there a demand for the non-medical executive trained to work in conjunction with, or as supplementing a medical director? Should such an executive receive the training under discussion?

NATIONAL NURSING ASSOCIATIONS MEET

The first biennial joint convention of the National Organization for Public Health Nursing, the American Nursing Association, and the League of Nursing Education, will be held April 12 to 17, at Atlanta, Ga. An extension of the period of the convention dates to include April 9 and 10 has been advised, as four groups of specialized nurses plan to organize sections of Infant Welfare Nursing, School Nursing, Tuberculosis Nursing, and Industrial Nursing, within the national organization.

During these first two days, by-laws will be adopted, officers elected, and programs presented. The urban, town, and rural workers will meet separately in order that they may discuss issues most vital to them. Programs on problems of organization and administration will be arranged for non-professional members.

April 12, the opening day, will be devoted to registration, business sessions, and a joint opening meeting.

April 13 and 14 each association will hold separate sessions, and April 15 and 16 there will be joint section meetings.

Among important subjects to be discussed at the general meetings of the National Organization of Public Health Nursing are:

State Programs of Public Health Nursing, The Public Health Nurse, what she is and what she does.
The Desirability of Creating Divisions of Public Health Nursing within State Departments of Health.
The Public Health Nurse and Venereal Disease Control.
The Public Health Nurse and the Extension of Acute Communicable Disease, Nursing in Its Relation to General Work.
The Public Health Nurse and the Extension of Maternity Nursing.
The Public Health Nurse and Mental Hygiene.
The Public Health Nurse and Industrial Hygiene.
Rural Needs and Rural Problems.
The National Program of Health Education and Protection for School Children.
Community Organization for Health Work.
Coordination of Public and Private Agencies in the Field of Public Health Nursing.

ROCKEFELLER FOUNDATION SUMMONS HOSPITAL SOCIAL SERVICE WORKERS

The development of hospital social service since Dr. Richard Cabat organized the first social service department in an out-patient department of the Massachusetts General Hospital in 1905, has been very rapid. Nearly two hundred hospitals throughout the country now have social service departments, and recognition of the necessity for such work in hospitals and dispensaries, is widespread. The adaptations incidental to the introduction

of this service under widely varying conditions, and the growing pressure of the work, has given rise to divergent opinions as to its scope and requirements. The lack of well defined standards by which to measure the functions of hospital social service work, its relation to hospital and dispensary administration, and the training requisite for its workers, has been felt. In order to arrive at conclusions important to constructive plans for the further progress of this service, the Rockefeller Foundation called a conference of hospital social service work, which was held February 21, at New York City. It was attended by some of the leading hospital, medical, social service and medical social service workers of the country.

Functions, Organization and Relation

The questions discussed were the following:

1. Should the hospital social worker devote herself solely to "case work" with a view to helping the doctor in his medical analysis and in carrying out the treatment prescribed?
2. Should she interest herself in the patient from the standpoint of his general social rehabilitation as well as his medical recovery?
3. Should she assume administrative responsibility in the hospital or dispensary, as (a) general administrator, or (b) clinic secretary?
4. Is it desirable that social service should be in charge of the admission desk of the dispensary in order to secure consideration of all cases?
5. Is it better, or necessary, to consider only a smaller percentage of cases which are referred to social service?
6. How should social service be related to other parts of the hospital or dispensary—the administration, medical staff, etc.?
7. How should social service secure cooperation of relief organizations? Should administration of relief be attempted by hospital social service?
8. How can duplication of case work be avoided between hospital social service and other agencies?
9. Is there danger of duplication or of lack of differentiation of work of hospital social worker and of public health nurse?
10. What are the proper relations of hospital social workers to public health authorities in reporting disease?

Qualifications and Training

11. Is a social or medical background the more important qualification for the hospital social worker?
12. In developing the medical background is the wisest course—
    (a) Training as a hospital nurse?
    (b) Training as a public health nurse?
    (c) General brief instruction and experience in medical procedure? (What would comprise such a course?)
13. In developing a social background is the wisest course—
    (a) Experience in regular social case work?
    (b) Instruction in a school of social work?
    (c) A combination of (a) and (b)?
14. Is there any basic training applicable equally to hospital social workers and public health nurses?
15. Under what auspices may a training course for hospital social workers best be inaugurated—hospital, social agency, university?

After this discussion Dr. Andrew D. Warner, executive secretary of the American Hospital Association, Cleveland, O., announced the offer of a gentleman whose name was not given, to finance a survey of social service work in hospitals. Those present resolved themselves into a voting body and approved the survey plan. Adjournment followed.

METHODISTS TO EXTEND HOSPITAL WORK OF CHURCHES

A definite step in the direction of extending the work of the Church to include the hospital cause, was taken by the National Methodist Hospital Association at their second annual convention in February in Chicago. Among important topics discussed were, the White Cross Movement, the position of Protestant hospitals in Inter-Church activities, the hospital building plans of the Inter-church Movement, and the establishment of a clearing house for buying and handling all hospital material.

E. D. Samson, a member of the board of the Iowa Methodist Hospital, Des Moines, Ia., who spoke on the White Cross, defined the movement as one intended to bring to the minds of the Church-going public the essential need of contributing, not only to missionaries and educational movements, but also to the hospital cause. The White Cross campaign is conducted from the pulpit by Methodist ministers, which method has proven highly successful. Mr. Samson states that $18,500 in cash was raised for the Iowa Methodist Hospital in one Sunday campaign. Although the White Cross has been incorporated in Iowa, the articles of incorporation provide for the usage of the plan by all hospitals of Methodism.

Inter-Church Movement

"The Relations of Methodist Hospitals to the General Conference," was the topic discussed by W. H. Jordan, Ashbury Hospital, Minneapolis, Minn., who asserted that the Inter-Church Movement has definitely undertaken the hospital cause, and will render it powerful assistance.

In corroboration of this statement, Frank Clare English, a representative of St. Luke's Hospital, Cleveland, and Superintendent, American Hospitals and Homes division, Inter-Church movement, New York, outlined preparations of the Inter-Church leaders for a campaign this spring, to raise $10,000,000 for maintenance and operation of hospitals. Another Inter-Church plan is to build at a cost of $25,400,000, the following homes and hospitals:

General hospitals in twelve states.
General hospitals for colored in twelve states.
Tuberculosis sanitarium in Arizona.
Four hospitals for incurables in four states.
Three children's orthopedic hospitals (in New York, Minnesota, and Texas).
Ten training schools for hospital executives.
Three homes for retired ministers and missionaries.
Four homes for missionaries on furlough.
Three homes for colored children.
Seven homes for aged, including one for colored.

In a talk on "Sidelights on Hospital Administration," C. W. Williams, Boston, consulting engineer, recommended the policy of non-interference between hospital boards and superintendents after a definite plan for operating the hospital had been adopted. He placed the age limit for superintendent service at seventy years. While advocating the extension of social service work in keeping track of patients, Mr. Williams urged the necessity of guarding against abuse of the hospital charity service. The policy of following up all patients for at least a year was favored by Mr. Williams.

The Association admitted the National Methodist Home

Association to membership, and voted to invite all Methodist homes for children to join. Officers elected were the following:

E. S. Gilmore, Chicago, president
F. C. English, Cleveland, first vice-president
W. A. Robinson, Cincinnati, second vice-president
W. H. Jordan, Minneapolis, re-elected secretary
C. W. Williams, Boston, third vice-president
A. B. Hestwood, Wichita, third treasurer.

The Association changed its name to "National Methodist Hospital and Homes Association."

ACTION OF WORLD SURVEY CONFERENCE

DR. F. C. ENGLISH, director, Hospital and Home Survey, Interchurch World Movement.

At the Atlantic City Interchurch World Survey Conference, the hospitals had their presentation with the other lines of foreign and home survey.

The Conference after a thorough discussion endorsed the Burton Report, which was referred to the General Committee and finally adopted.

This report reveals the budget construction, or method of participation in the financial campaign, marked for its care and completeness.

"The action in regard to union and independent agencies was formulated according to a previous agreement made at Cleveland, Ohio, in September, 1919. They are limited to such amounts in the askings as the denominational agencies may be willing to add to their respective budgets. Hope was expressed that the way may be left open in the future for a careful and sympathetic study of such institutions, so that if there are ways in which these, which have a distinct Christian purpose, can, with the approval of all the bodies involved, be allowed to participate, this may be brought about."

Concerning philanthropic institutions the action was:

"That the budget of any philanthropic organization shall be included in the budget of the Interchurch World Movement only by first being included in the budget of a national denominational body, except that the budget of any local denominational philanthropic organization, which is approved by the denominational authority of the State Conference or other like area in which it is located. may be included in the denominational budget of that area."

This interpretation of "denominational authority" has been sent to each hospital from the Hospital Survey office:

"Denominational authority of the 'State Conference or other like area' may be secured by obtaining a letter of authorization from appropriate officer or officers having power to act, in the following list, namely:

"The president, clerk, secretary, and treasurer of an association, a conference, a presbytery, synod, or other denominational body, or

"By the bishop of a diocese, or bishop of a conference, his cabinet, or the principal officers of the conference, region, or province, or

"Authority may be secured from the officers of a Regional Denominational Forward Movement, or the officers or council of an Area Denominational Forward Movement."

The first Interchurch financial campaign is for one year only. To carry out the action of the Atlantic City conference and that of the General Committee, the Hospital and Home Department has sent out letters of authorization to all church hospitals asking that they be returned at once, so that the final budget may be completed. The Hospital and Home Department of the Interchurch is planning to go on with its work in order to complete a most thorough, scientific, personal survey of every hospital. Each hospital is to be rated by a "Norm," formulated after the most careful research and study. Unoccupied fields and most needy situations will be given special attention.

The General Committee of the Interchurch gave the following hearty approval of philanthropic institutions:

"The Conference placed upon record its unhesitating conviction that the Church of Christ should regard the founding and maintenance of agencies of philanthropy such as hospitals and homes first among its fundamental obligations. It looks forward to such development of these agencies and such assumption of denominational responsibility for them as will make it possible to present their claims for them in the largest and most inclusive way to our constituency."

SOCIAL WORKERS TO DISCUSS PROBLEMS OF HUMAN NEED

At the forty-seventh annual meeting of the National Conference of Social Work, which will be held in New Orleans, April 14-21, leaders of social thought and work will gather to discuss the problems and methods of human betterment. The meeting is an open forum for the presentation, analysis, criticism, discussion, and evaluation of the latest social thought.

In the mornings and afternoons, section meetings will be held, dealing specifically with Children and Child Welfare, Delinquents and Correction, Health, Public Agencies and Institutions, The Family, Industrial and Economic Problems, Local Community Problems, Mental Hygiene, Organization of Social Forces, and the Uniting of Native and Foreign Born in America. Among subjects to be considered are the following: "Recent Gains in State Health Legislation," "Team Work in the Public Health Movement," "The Next Steps in Public Health Nursing," "The Physician and the Layman in Health Work," and "Special Health Problems of the Immigrant."

At the evening sessions subjects of wide general interest will be treated. The section of the conference dealing with health will hold a joint general session with the section on local community on Wednesday evening, April 21. The general subject will be the "Democratization of Health." Royal Meeker, Commissioner of Statistics, United States Department of Labor, will discuss the subject of "Standards of Living Essential to Health."

Subjects of special interest to physicians, to be presented at the conference are: "Public Institutional Care of Crippled and Deformed Children," "Leprosy and Leprosariums," a program for the "Segregation and Care of the Feeble Minded," the "Mentally Handicapped and Their Extra-Institutional Supervision and Utilization," and the "Rôle of Mental Hygiene in General Social Service."

The proceedings of the conference will be published.

"Whither, thou turbid wave?
Whither, with so much haste,
As if a thief wert thou?"

"I am the Wave of Life,
Stained with my margin's dust;
From the struggle and the strife
Of the narrow stream I fly
To the sea's immensity.
To wash from me the slime
Of the muddy banks of Time."—Tiedge.

NURSING AND THE HOSPITAL

Conducted by CAROLYN E. GRAY, R.N.,
Secretary, New York State Board of Nurse Examiners,
132 E. 45th Street, New York City

NURSING AND HEALTH ALUMNAE OF TEACHERS COLLEGE HOLDS REUNION

The Annual Reunion and Conference of Nursing and Health Alumnae of Teachers College, Columbia University, was unusually extensive and interesting this year because of the celebration of the Department's 20th anniversary. A large group of alumnae, students, and friends met on Thursday afternoon in the chapel of the College, where several addresses were given dealing with the history of the Department, and, with its contribution to nursing education and public health work. Miss Nutting's opening paper reviewed the main steps in the development of the Department's work, beginning in 1899 with the entrance of two students, and continuing to the present year with a registration of 288 full-time and part-time students. Miss Nutting thanked the many good friends who have assisted so generously in making this advancement possible, particularly acknowledging the Department's debt to Mrs. Jenkins, whose generous endowment in 1910 opened the way to the much wider expansion of recent years.

Dean Russell, speaking on "The Education of Nurses and The University," stressed the fact that nurses had "made good" in university work, that their educational standards were quite equal to those of other students and were constantly rising, that they had demonstrated their right to professional status by their scientific knowledge which they now possess, and by their power of directing their own activities along lines of highly useful public service. Dean Russell paid a warm personal tribute to Mrs. Robb and other nursing leaders whose vision of faith and enthusiasm first induced him to admit a very small group of nurses to Teachers College; he also praised Miss Nutting to whose genius, energy, and devotion he attributed the marvelous growth of the work.

Dr. Winslow, who has been a member of the staff of the Department for ten years, spoke on "The Education of Nurses for Public Health Work." Dr. Winslow believes that the public health nurse has come to be the most important factor in the public health compaign and he attributes this very largely to the social vision, energy, and personality of nurses themselves, who both as individuals and as organized groups, have persistently pushed forward the ideas of preventive medicine, and of health and education as an essential part of the nurse's work. Dr. Winslow does not agree with some health authorities who feel that this teaching work can be separated from the actual nursing care of patients. He believes, however, that the ordinary training as carried on in most hospitals is insufficient and that the nurse's educational foundations must be greatly strengthened if she is to measure up to her possibilities in public health work. The credit for the first pioneer effort in this direction, must be given to the Department of Nursing and Health, which has led the way not only in this country but in other countries in the professional preparation of nurses for the public health field.

Miss Lillian Wald of the Henry Street Settlement, speaking on "The Visiting and Teaching Nurse in the Community," emphasized the value of practical experience in this field, and the high privilege which nurses have in being able to unite with tender ministration to the sick, the most potent kind of educational force. Back of the soundest and broadest practical scientific training she felt there must be a kind of moral zeal, closely akin to the religious feeling which has always given a powerful impetus to nursing service. Referring to the International Red Cross Congress at Cannes, which she attended last summer, Miss Wald pointed out that in every proposed plan for health protection the public health nurse was the most potent factor. Countries lacking such workers are hopelessly handicapped. America has a great service to render, not only in training and sending nurses to such countries, but in working out sound and serviceable methods to be used in any part of the world.

In her paper on "The Service of The Department to Training Schools and Hospitals," Miss Sara Parsons, superintendent of nurses of the Massachusetts General Hospital, called attention to the large number of teachers and superintendents who have been trained and sent out from the college, and who have not only succeeded in building up individual nursing schools, but have also helped greatly in raising the general standards of nursing education throughout the country. Important as this contribution has been, however, Miss Parsons felt that an even greater service has been rendered to nursing schools by the unfailing advice, inspiration and criticism which they have learned to look for from the "Voice" at the College.

Before closing this part of the anniversary program, Miss Permelia Doty, president of the Nursing and Health Alumnae, on behalf of the past and present students of the department presented Miss Nutting with a check for $1,200 which was intended to serve as a token of the love and admiration of her "children" and of the very real pride which they feel in her leadership.

The plan is to make this the nucleus of an Adelaide Nutting Historical Nursing Collection, which will be housed in the college and will be available for all who wish to consult it. Although a little overcome by the quite unexpected tribute, Miss Nutting was able to say a few words about the great need for such a historical nursing collection and the intense satisfaction it would be to her to help in building it up.

A very enjoyable reception and tea followed the afternoon meeting.

At the conference next morning on "Teaching and Administration in Nursing Schools," the subjects discussed were, "How to recruit more qualified women for teaching and executive positions in hospitals," by Maud Landis, of the Connecticut Training School, New Haven; "How to increase the educational value of the practical work of pupil nurses" by Effie Taylor of the Johns Hopkins' Nursing School; "How to economize the time and energy of pupils and teachers in nursing schools" by June Ramsay, Lakeside Hospital, Cleveland; and "Some problems of state supervision of training schools" by Elizabeth Burgess, State Education Department, Albany, New York. Some of these papers will be published later. It is evident from the whole trend of thought in these papers and the discussions which followed, that the main hope of securing both graduate and pupil nurses for hospital work, lies in providing greater opportunities for individual initiative and for educational advancement, in broadening the social and intellectual life of the nurse, in reducing the present exhausting hours of service, and in providing better salaries for graduates in hospital positions.

The plan to eliminate much of the routine unskilled work now done by student nurses seems to meet with pretty general approval but further readjustments need to be made in order that the clinical experience be made more available for student nurses. A number of practical suggestions were made, among them the setting aside of a special teaching ward for beginning pupils, where they could be under constant teaching and supervision, the wider use of case histories in the teaching of nurses, more clinical teaching, and more opportunity for specialization within the third year.

Miss Burgess gave a very clear picture of the work of an inspector of nursing schools, and some of the typical problems with which she has to deal—the deplorable and discouraging lack of comprehension of what a nursing school stands for, the efforts to deceive the inspector and to evade the requirements of the law, the constantly changing and unsuitable officers in many nursing schools, and the poverty and inadequacy of many hospitals as training fields. In spite of all these difficulties, however, the field offers unlimited opportunities for helpful and constructive work in nursing education.

The need for more supervisors in Public Health work and how they should be trained was discussed by Helen Boyd. There were also talks by Miss Sutherland on a new experiment in house-to-house health instruction which is being developed in a limited district in New York by the A. I. C. P., and Naomi Deutsch spoke on the development of teaching districts for the training of Public Health Nurses.

At the luncheon of the Nursing and Health Alumnae, held in Students Hall, representatives of the various classes from 1892 to 1919 gave some account of the history of their members, and indulged in humorous and serious reminiscences of their college days. All were impressed by the wide range of activities represented by these former students, the prominent positions which many of them hold, and their solid contributions to nursing literature and to educational progress.

On Saturday morning, February 21st, the conference was opened with a very interesting paper by Dr. Kandel dealing with "Conditions of State Aid for Educational Institutions," which outlined the history and present tendencies of state aid, and indicated the lines along which efforts may be made to secure such assistance for nursing education. Miss V. May MacDonald spoke on the needs of the psychiatric field and the value of the psychiatric training for all nurses. She made a special plea for the mental nurse who is struggling to establish better conditions in the care of the mentally sick, and who is often disheartened by a lack of sympathy and recognition among general nurses. She also urged more affiliations between general and mental hospitals for the training conditions in mental hospitals which often make such affiliations impossible; and after some discussion it was decided that a small committee be formed to draft a resolution which might be sent to the Committee on Mental Hygiene, calling attention to these difficulties and urging that some action be taken to remedy them.

Some of the more recent developments in nursing were described very briefly with emphasis on the educational preparation required for such branches Emilie Robson discussed the opportunities in industrial nursing; Mrs. Hill, social service work in the control of venereal disease: Anne Stevens, the development of maternity clinics and the whole scheme of pre-natal teaching and supervision, and Mrs Dahlman, the many phases of nursing work in which a sounder knowledge of food and nutrition is becoming increasingly essential. All these new branches of work create new demands on the training school, which is expected to give at least a good foundation for further specialization.

A brief account of her experiences in introducing public health nursing into the city hospital training school where there had previously been both indifference and opposition to it was given by Carolyn E. Gray. By creating an interest in social problems first, and then selecting carefully the students to make the experiment, the whole attitude of the school was quickly changed, and the course in public health nursing given by Henry Street Settlement in coöperation with Teachers College, became so popular that every student wanted it. The effect on the school as a whole was excellent and students came back more interested than ever in their patients and more appreciative of their opportunities.

Apart from these meetings and conferences of the Nursing and Health Group, and the round tables for informal discussion, there were a number of meetings for the whole Alumni, at which most interesting addresses were given on general educational questions. The meetings were on the whole very well attended both by students and alumnae of the college, the Nursing and Health Group having an attendance of 200 to 300 at some of its meetings. A number of visitors were also present.

FIRST AID CLASSES POPULAR

During last year more than 20,000 persons attended the first aid classes organized by the American Red Cross, and of these 5,000 completed the course and received Red Cross first aid certificates. The number of classes organized was 965. First aid is an important part of the post-war public health campaign of the Red Cross, and an even larger number of classes and students is anticipated during 1920.

Since 1909, first aid instruction has spread to virtually every industry. More than half a million railroad men alone have taken the course. Mines and quarries and factories of all descriptions have taken it up, and the experience of the Red Cross shows that the accident rate among men who have received instruction in first aid and accident prevention is 75 per cent less than among the uninstructed. Classes may be formed by any community, society, club, store, police or fire department, or similar bodies, in cooperation with the local Red Cross

chapter. A post-graduate course is open to those who have completed the preliminary course and desire further instruction.

NIGHTINGALE CENTENNIAL

By JAMES RORTY

The hundredth anniversary of the birth of Florence Nightingale will be celebrated the 12th of next May. This event is in itself of sufficient public interest to merit a considerable degree of notice in the newspapers; and indeed, the anniversary celebration is a most opportune time to bring to public attention the progress of nursing made since Nightingale times, the remarkable improvement in hospital administration, the advance in educational standards of the training schools, and the extraordinary development of the public health nursing movement.

Public meetings, exercises, and ceremonies may appropriately be held in commemoration of the centennial, by individual nursing associations or training schools, or by an alliance of training schools and nursing associations, or both. Such an alliance, for example, has been worked out in Chicago by the Illinois Council for Nursing Education which is planning an extensive recruiting campaign. It would seem entirely proper to make such celebrations the occasion for bringing before the public the work of the various nursing groups, their relations to public and private health agencies, and their present needs.

Both the training schools and the nursing associations need primarily a better public understanding of their work which will bring more generous moral and financial support. The training schools have a second vital interest which is particularly important at the present time—that of attracting larger numbers of high grade applicants for their courses. Both of these needs can be effectively served by organizing local celebrations of the centennial.

The celebration may, in fact, be organized for the benefit of the local nursing groups which, in that case, may expect to profit financially from the enterprises. In any case, the expense of the celebration need not be at all heavy. The returns can scarcely fail to be considerable, both in the shape of a public better informed concerning the work of hospital training schools and nursing associations, and therefore more responsive to appeals for financial support, and in the shape of larger numbers of desirable recruits for the training schools.

Tentative Organization Program

Following is a tentative outline of the manner in which such a celebration might be organized and conducted.

A. *Personnel and Committees:*

(1) *Secretary.* It is, of course, desirable that complete responsibility for the undertaking be lodged with one person whose time, if possible, be entirely free for this work for at least a month preceding the celebrating.

(2) *Centennial Celebration Committee.* Representing training schools, nursing associations, interested lay people, club women, medical professors, the press, state or city government.

(3) *Sub-Committees.* Finance preparation and distribution of printed literature, a motion picture program and publicity.

B. *Program of Celebration:*

Addresses by prominent people; Nightingale Tableaux; motion pictures and music.

C. *Recruiting Activities Incidental to Celebration:*

(1) Complimentary tickets to junior and senior classes of high schools, normal schools, girls' schools and colleges in the city and nearby. Subscription seats sold to general public.

(2) *Distribution of Literature.* Leaflets and pamphlets describing the work of the local training schools, nursing associations, and making an appeal either for recruits or for financial support, as the case may be. The National Organization for Public Health Nursing is prepared to supply at cost recruiting posters and two pamphlets—one "The Foster Mother of the Race," and "The Lady with the Lamp—and her Inheritors." Presumably, similar literature may be obtained from the Red Cross and other organizations.

D. *Preliminary Newspaper Publicity.* If funds are available a local publicity worker should be employed on part time. If not, good results can frequently be secured if an interested local editor is appointed on the committee. The success of the celebration will depend in a considerable degree upon the quality and quantity of this preliminary publicity. The plans for the celebration should be announced six weeks or a month in advance and supplementary announcements of plans, etc., should be run from time to time. For a celebration of this kind it is frequently possible to get special stories in the Sunday editions, illustrated by photographs of nurses at work, interior and exterior views of training schools, nursing association headquarters, etc. On the morning preceding the celebration it should be possible to get a fairly extended story about the celebration with perhaps an editorial in the newspapers on Florence Nightingale and her successors of today.

Public Health Nursing Organization Co-operates

Aside from the foregoing tentative suggestion, the National Organization has issued a set of Nightingale Tableaux prepared by Miss Gabrielle Elliott, Amateur Dramatic Editor of the Woman's Home Companion, which are published by McMillan and supplied to nursing associations and training schools at the usual 20% discount. These tableaux may be ordered through the National Organization for Public Health Nursing. The two reel film "An Equal Chance," produced by the National Organization for Public Health Nursing, will prove useful as educational and recruiting propaganda, and is particularly appropriate because it contains a brief section on Florence Nightingale. Of the two booklets mentioned, one "The Lady with the Lamp—and Her Inheritors" is a very brief "inquiry puller" describing the present opportunities in the field of public health nursing; the second "The Foster Mother of the Race," is an attractive illustrated pamphlet for popular consumption describing the various types of public health nursing. In addition the National Organization for Public Health Nursing has for sale a limited quantity of Mrs. Mary Aldis' monograph on Florence Nightingale.

The Diamond

I only polished am in mine own dust:
Naught else against my hardness will prevail.
And thou, O man, in thine own sufferings must
Be polished: every meaner art will fail.

—Gems of the Orient.

DIETETICS AND INSTITUTIONAL FOOD SERVICE

Conducted by LULU GRAVES,
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THE PRESENT STATUS OF VITAMINES*

By KATHERINE BLUNT AND CHI CHE WANG[1], University of Chicago, Chicago, Ill.

It is not a simple undertaking to summarize even the more important points in the recent literature on vitamines, because the subject has been developing very fast during the last few years, and parts of it are still much in debate. Not only has information been gained from laboratory research but from observations of the tragic human experience with inadequate war diets.

The material is considered under the headings of the three vitamines now recognized—fat-soluble A, present in butter fat, cod-liver oil, green leaves, etc., the absence of which results often in the eye disease xerophthalmia; water-soluble B, fairly widely distributed in plants, and necessary to prevent polyneuritis or beri-beri; and water-soluble C, the antiscorbutic vitamine. All are necessary for the best growth.

Fat-Soluble A

Dr. H. Gideon Wells[2] of the Department of Pathology of the University of Chicago, who served in Roumania under the Red Cross, tells a dramatic story showing the need of this vitamine for children. The scanty diet in Roumania, when he arrived, consisted of little more than a limited amount of corn-meal and quantities of a very thin bran-vegetable soup. There was no milk nor butter, for the Austrians had driven off the cows. Many of the children had eye disease, sometimes so severe as to cause blindness. There also was much of the distressing swollen condition known as war-edema, the latter probably due to the low calories and specially the low protein of the diet. Dr. Wells, at the height of his difficulties in getting food of any kind, learned of a vessel which had put into Archangel with cod-liver oil as its entire cargo. Through the efforts of the Red Cross, all of it was sent down, and it saved the lives of many of the children. After their long fat starvation, they took readily what might have been refused under happier circumstances.

Not only xerophthalmia but rickets may be connected with lack of fat-soluble vitamine. Work by Mehanby (1) on puppies seems to point in this direction, and possibly that of Hess and Unger (2) on the value of cod-liver oil in curing and preventing rickets in negro infants.

The need for fat-soluble A is not limited to children or young animals in general. Drummond (3), in London, has shown that as young rats approach maturity their requirement becomes markedly less. They can even live without it in apparently good health for considerable time, but sooner or later they lose weight and often have eye disease. They also show a distinct decrease in resistance to various infections, many deaths from infectious disease occurring. The older the young rats are the longer they can stand the inadequate diet before their decline. Dr. McCollum in his lectures has reported what he believes to be a similar pathological eye effect in adult human beings in certain northern lumber camps where the only fat is cured bacon and where the diet must be almost completely lacking in *A*. A condition known as "night-blindness" is prevalent—a defect of eyesight not noticed by the non-reading laborer till the dim light of night. "There is therefore every reason," says Drummond, "that great care should be taken to ensure that dietaries of adults contain an adequate supply of foodstuffs in which the fat-soluble A is present."

The fat-soluble vitamine occurs in more foods than was at first thought, but in variable quantities. Butter fat is still regarded as the most important source, but the quantity (4) therein depends upon the quantity of *A* in the feed of the cow and upon the manipulation of the butter itself. (See below in connection with stability.) Whale oil is another fairly rich source, though not so rich as butter. Drummond (5), with carefully standardized methods of feeding young rats and noting the change of weight, if any, week by week, found that he obtained about the same satisfactory growth when the fat-soluble A came wholly from 8 per cent butter fat or 20 per cent whale oil. McCollum (6) has found even smaller amounts of butter fat entirely satisfactory—as little as 3 per cent. Fish oils in general, and fat fish may serve as valuable sources. Oleo oil, as shown by Osborne and Mendel several years ago, contains a fair amount of it, and so do oleomargarines made from oleo oil, but not the nut margarines made wholly from vegetable oils (8). However, as Steenbock (4) says, "Oleomargarines . . . are not to be considered in the same class as good butter in providing the organism with the fat-soluble vitamine." Pig's liver oil, and liver tissue, kidney tissue, probably glandular organs in general (9) give fair supplies— that is, that portion of the animal of which we eat little is far superior to the skeleton muscle of which we eat much.

Of the vegetable sources we know even better than formerly the value of spinach. Osborne and Mendel (10) fed rats dried spinach to the extent of 5 per cent of the diet as their only source of fat-soluble vitamine for eighty-seven and eight-three days; then substituted the spinach by yeast, which is free from the fat-soluble vitamine, containing only the water-soluble. The rats continued to thrive for ninety-three and ninety-seven days

*Reprinted from The Journal of Home Economics.

1. The authors wish to thank Dr. Lafayette B. Mendel and Dr. E. V. McCollum for reading this paper and making important suggestions.

2. Personal communications.

more; that is, they had stored up enough of the fat-soluble vitamine from the spinach to last through the long period of deprivation. Cabbage is not so satisfactory. Carrots (11), although not leaves, have some fat-soluble A; peas (12) a small amount. So, too, possibly, do bananas (13). Yellow corn (14) may contain sufficient amount to allow normal growth and reproduction in the rat, but white corn is valueless as a source.

A very interesting generalization[3] has been made by Steenbock (14) about the foods which contain this vitamine: they all contain yellow coloring matter. Butter, egg yolks, cod-liver oil are obvious examples. Oleo oil, the part of the beef fat which contains the vitamine, is yellow, the solid beef fat which lacks it is colorless. Of the commercial oleo oils which he has tested, those most highly pigmented are richest in the fat-soluble vitamine. Colored roots such as carrots and sweet potatoes have it, but sugar beets, mangels, dasheens, and Irish potatoes have little or none. Spinach and grass, of course, have yellow associated with their chlorophyl. The carotin isolated by Steenbock did not serve as a substitute for the vitamine, but carotin is a very labile substance and may have changed chemically in the process of removal. "It appears reasonably safe, at least as a working hypothesis, to assume that the fat-soluble vitamine is a yellow plant pigment or a closely related compound."

The stability of fat-soluble A is not nearly so great as has been thought. The earlier conclusion that it is stable to heat is due more probably to the fact that such large quantities of the vitamine-containing food were fed that a destruction of part of it would not be noted. Steenbock, Boutwell and Kent (4) have found that after butter fat had been heated for four hours at 100° its growth-promoting properties had largely disappeared, and after one hour at 100° they had distinctly lessened. Drummond, interested particularly in the use of hydrogenated fats as butter and lard substitutes during the fat shortage in England, has investigated the question both for whale oil and butter. The hydrogenation of the whale oil at 250° for four hours completely destroyed the *A*. Even heating at 100° for an hour had the same effect, or keeping it for eighteen days at 37° spread out exposed to air. The heat was the cause of this loss of efficiency, for shaking with oxygen at room temperature made no change. Steenbock mentions a sample of butter which showed no demonstrable amount of *A* after it had been kept three weeks unsalted in a poorly iced refrigerator. The probability of some destruction during ordinary cooking processes is thus of interest.

With cabbages (15), too, high temperatures or drying may reduce the efficiency, an hour's heating at 100°-120° having no effect on *A*, but two hours at 130° destroying it completely.

The fat-soluble vitamine therefore seems to be of even greater importance in the diet of young and old than was formerly realized, and while it is more widely distributed, it is less stable than the first investigations demonstrated, and may be even destroyed in part at temperatures used in cooking.

Water-Soluble B

For studying the water-soluble vitamine, observations have been continued on the growth of rats and on the onset of polyneuritis in pigeons and chickens. While it is not definitely proved that these two methods deal with one and the same substance, the assumption that such is the case is usually made. A new and most promising method of research has just been developed by Williams (16) in the laboratory of Physiological Chemistry of the University of Chicago. Yeast (16, 17), unlike the higher plants, cannot grow without this vitamine. Therefore if drops of different solutions each containing a single yeast cell are observed microscopically at intervals of a few hours, the growth of the yeast and the number of cells into which it has multiplied will show not only whether the solutions contain the vitamine but the relative quantities present. This method is of course much simpler and quicker than the usual feeding experiment and will probably result in a rapid increase in our knowledge of this vitamine.

Water-soluble B occurs more widely in plant than in animal foods. Milk is by no means rich in it. Osborne and Mendel (18) found it necessary to give their rats at least 16 cc. per day for normal growth. They discuss but do not explain to their satisfaction the much quoted[4] result of Hopkins, who secured remarkable growth on adding as little as 2 cc. of milk to a diet on which his rats were failing. They warn against a diet of white bread and only a little milk, or against feeding infants a top milk, water, sugar mixture. Muscle tissue also is low in this vitamine, but various other animal tissues—heart, kidney, brain, and liver—are satisfactory sources of supply—a distribution similar to that of *A* (9), though somewhat wider.

An especially satisfactory statement of the occurrence of this vitamine in plants, as so far known, is given by Osborne and Mendel (19) in the *Journal of Biological Chemistry* for this past August. They list a wide variety of plant foods, including, among others, seeds or cereals and a number of legumes, spinach, cabbage, potatoes, and carrots; and they add to the list, from their own recent experiments, the usual edible portion of the onion, turnip, beet (leaves, stem, and root), and tomato. A goodly number of our common vegetables have thus been tested for *B*, and so far, without exception, every one has been found to contain it—a much wider distribution than that of *A*. The part of the cereal that is rich in it is not the bran, as usually supposed, so much as the germ, which is often removed with the bran, *e. g.*, in rice polishings. Commercial wheat bran contains more or less vitamine, according to the amount of the germ associated with it. Of one sample tested by Chick and Hume (20) five and a half times as much had to be used to cure polyneuritis pigeons as was necessary when the germ was used. Our commercial bran is especially thoroughly "skinned" when it comes from large, well-equipped modern flour mills (21), and therefore is of little value to correct the deficiency of white flour and bread. Even the yeast or the milk used in the white bread does not prevent polyneuritis in pigeons (22), though the yeast delays the period of its onset. On the other hand, bread made from real graham flour is adequate. Of course, these facts have important bearing upon the kind of flour most desirable from the standpoint of national nutrition. Voegtlin and Lake, in a later paper (23), say, "We believe that a product which does not contain any bran but does include the germ would not possess these objectionable features [of causing intestinal disturbances], would at the same time be more nutritious and would reduce greatly the possibility of vitamine deficiency in the modern mixed diet."

Yeast (10) is distinctly the richest known source of the water-soluble vitamine, being four times as efficient as

3. See, however, an article by Palmer, which appeared after this paper had gone to press, in Science, 50, 502, (Nov. 28), 1919, and which enumerates various foods with yellow color and without A, and with A without yellow color.

4. Sherman: Food Products, 1914, p. 79.

dried spinach, which ranks next among a group studied quantitatively. Only half as rich as spinach are whole wheat, soy beans, dried eggs, milk solids. Cabbage, too, is not so satisfactory as spinach. Wheat germ is a valuable source, and so are navy beans and peas. Immature alfalfa clover and timothy show decided advantage over the mature (19). This variation with age may apply to plant foods in general and may mean a real nutritive superiority for young vegetables.

Like fat-soluble A, *B* is not so stable toward heat as we formerly supposed. McCollum's beans and peas (12), which, although heated for one and a quarter hours in an autoclave, still supplied all the *B* that the rat needed, were fed in large quantities, often as much as 25 per cent of the diet. When the food supplying *B* is fed in the smallest amount which will produce growth at all (24), it is found that heating above 100° does cause deterioration, and that the heated food has to be supplied in larger quantities than the raw food For example, while wheat germ (25) heated 2 hours at 100° loses little or none of its potency, heated 40 minutes at 113° it loses one-half, and heated 2 hours at 118°-124° it may lose up to nine-tenths. These temperatures, of course, point to the safety of the water-soluble vitamine in our ordinary cooking processes, but the danger of its partial or complete destruction in commercial canning or other high-pressure cooking. Tinned meat, Chick and Hume report, is devoid of this vitamine, a fact shown not only by their laboratory experiments, but by the repeated development of beri-beri in the British army in the Dardanelles and Mesopotamia, where the diet for a time consisted only of white bread, tinned meat, and jam.

Alkali Treatment

The stability of *B* toward alkali seems to be uncertain, though here, too, according to Chick and Hume, the difficulties may be due to feeding such large quantities that a destruction of half or even more during the alkali treatment would not have noticeable effect on the animals. Sullivan and Voegtlin (26) of the United States Public Health Service, who observed several years ago that chickens developed polyneuritis promptly on corn bread made with soda but not on corn bread made with salt, now report polyneuritis in cats and dogs fed meat treated with sodium carbonate till distinctly alkaline and then heated at 120° for three hours; meat heated without the alkali was still a fairly satisfactory food. Rats, however, that were fed the alkali meat liver for at least 110 days—a fact quoted by Osborne and Wakeman (27) to show, with experiments of their own, that the vitamine is more resistant to alkali than generally supposed. Daniels and McClurg (28) feeding generous quantities of navy beans, soy beans, and cabbage, found the diets entirely satisfactory even when cooked for an hour and a half with 5 per cent sodium bicarbonate. McCollum and Simmonds (29) find the *B* in wheat germ destroyed by boiling with 0.28 per cent sodium hydroxide for an hour, but Osborne and Wakeman (27) find it undiminished in yeast digested with tenth normal sodium hydroxide (slightly stronger than McCollum's) for two and a half hours, and then heated for two hours. It may be that previous extraction with ether or other removal of the fat lessens the stability of *B* (16).

What happens in the body as a result of lack of the water-soluble B in the diet? McCarrison (30), working in India[5] has made striking advances in answering this question. He has observed changes during life and loss in weight of organs after death in a large group of pigeons made polyneuritic by a diet of polished rice, and later a group fed polished rice, butter fat to supply *A*, and onions for *C*.[6] There was little difference between the group undergoing *B* starvation and that with general vitamine starvation. The body temperature of the pigeons gradually fell from a normal average of 107° F. to 98° or 99° F., showing a marked slowing up of metabolic processes. Digestive processes were greatly impaired; the starch was largely excreted unchanged. The different organs of the body lost weight strikingly, all except the adrenals, which gained—thymus most, then, in order, testicles, spleen, ovary, pancreas, heart, liver, kidneys, stomach, thyroid, brain. The testicles lost 93 per cent and the ovaries 69 per cent of the original weight. "Perhaps one of the most remarkable results of a dietary deficient in so-called anti-neuritic vitamine is the constant and very pronounced atrophy of the testicles in males and the similar but less pronounced atrophy of the ovary in females." Other investingators have noted similar results of vitamine starvation. Drummond found that when male rats, after as short a time as fourteen days on a diet adequate except for *B*, were mated with females on an adequate diet, no pregnancies resulted.

Such degrees of atrophy in the human subject would result in sterility in males and in amenorrhoea and sterility in females. Human observations are not lacking. McCarrison quotes Vedder as saying that beri-beric women cease to menstruate. "War amenorrhoea" (abnormal cessation of menstruation) is referred to in many recent German periodicals with alarm, attributing it in part at least to defective nutrition. In the Charité-Frauneklinik in Berlin it has been seven times more frequent than before the war.[7] In Belgium, too, many cases have been observed (31). The experience of Benedict's young men is also striking (32). These difficulties may, of course, be due to general food lack rather than to the specific deficiency in *B*.

Miscellaneous infections were very frequent among McCarrison's pigeons. The whole body was liable to be overcome by a rank growth of bacteria. There may be some similarity between this observation and the great increase in tuberculosis abroad during the war.

The whole morbid process of McCarrison believes to be due to muscular starvation of all tissue cells. "Vitamines are nuclear nourishers."

Water-Soluble C

The third vitamine now recognized is the antiscorbutic. The earlier conclusion (3) that scurvy is not a deficiency disease, but is due to constipation, has been abandoned. Its adoption probably arose from having a non-controlled milk intake in the diet of the experimental animals and therefore a slight and variable amount of the vitamine.

With this vitamine even more than with the others, human experience as well as laboratory experiments must be considered—both infantile scurvy and adult scurvy. Mild cases of the latter may merely manifest themselves in languor and depression, and severe cases in looseness and final falling out of the teeth, soreness and hemorrhages of the gums, swelling of the joints, great weakness, and finally death. Degenerative tooth changes are

5. A fairly full abstract of the first of these papers is given in British Medical Journal 1, 177, (Feb.), 1919, and a briefer reference to it by Le Mer in Jour. Amer. Med. Assoc. 73, 1381, (Nov. 1), 1919.

6. Observe apparent contradiction here with Osborne and Mendel's work with rats, proving B in onions. McCarrison's pigeons became polyneuritic even more promptly in the butter-fat-onion group than on polished rice alone.

7. (British Medical Journal, Dec, 1, 1917, p. 734).

particularly characteristic of scurvy (34). They have been described at length in the guinea-pig and are said to be identical in the human subject.

The laboratory animal most used is the guinea pig, for rats, while they thrive better with the antiscorbutic than without it, (35) do not have scurvy. The usual experimental method, carefully worked out, is to note the smallest quantity of experimental food which will prevent the onset of scurvy in the guinea pig when added to a basal "scorbutic diet" such as oats, hay, and autoclaved milk.

Among the chief workers on the antiscorbutic vitamine are Hess in New York, Givens in New Haven and Rochester, and the group, largely women, at the Lister Institute of Preventive Medicine, London—Harriette Chick, E. Margaret Hume, and others. The results of the latter were made the basis of the recommendations of the Food (War) Committee of the Royal Society on the prevention of scurvy in the army and navy (36). Three recent editorials (37) in the *Journal of the American Medical Association* summarize much of their work as well as that of others.

"The vitamine is present in living vegetable and animal tissues, in largest amounts in fresh fruits and green vegetables, to a less extent in root vegetables and tubers. It is present in small amount in fresh meat and milk, and has not been detected in yeast, fats, cereals, pulses" (38). It is sensitive to high temperature and destroyed "when the living tissue is disorganized by drying and other methods of preservation." Orange juice has been generally recognized as one of the best antiscorbutics; grapes are only about one-tenth as satisfactory. Orange peel extract is also of value. Lime juice is poor. The "lime juice" of the eighteenth and early nineteenth century which was responsible for the disappearance of scurvy from the British navy was really lemon juice from the Mediterranean countries. In 1875 certain vessels on polar exploration changed from the old "lime juice" to the true west Indian lime, and scurvy broke out again with great severity. The Lister Institute work has shown that fresh lemon juice has about four times the value of lime juice as an antiscorbutic and that preserved lime juice is almost valueless.

Of the vegetables (39), often more readily available than the fruit and cheaper, raw cabbage is even better than orange juice, and the raw juices of swede (a kind of turnip), beetroot, and carrots are of service. Cooking (40), however, diminishes or entirely destroys their efficiency except when the vegetables (carrots) are young (Hess). Cabbage (15) cooked for one hour at 60° or twenty minutes at 90° to 100° lost about 70 per cent of its antiscorbutic value and for one hour at 90° more than 90 per cent. Long cooked or canned vegetables are thus of no value as antiscorbutics, a fact borne out by human experience for many years. Canned tomatoes (40) seem to be an exception, possibly because of their acid and original richness in the substance. They have been successfully used as a substitute for the more expensive orange juice to prevent scurvy in infants receiving pasteurized milk (41).

Drying, too, lessens the value (42) and, still more, storage after drying. Dryed vegetables and herbs have been tried in scurvy in the Army and Navy with no help. Dried tomatoes, however, Givens (43) found, still retain a significant amount of the original high antiscorbutic potency. Drying generally does least harm when done quickly at a low temperature (under diminished pressure) and when the vegetables dried are young. Dried beans, themselves valueless, develop their vitamine on sprouting (44). The Food (War) Committee of the Royal Society recommends (36) that when other antiscorbutics are not available the beans be sprouted and the sprouts used. Their therapeutic value was strikingly shown when King's College Hospital, London, with a number of mild cases of scurvy in soldiers from Serbia, divided its patients into two groups, treating thirty in one ward with 4 ounces of fresh lemon juice daily, and twenty-seven in another with 4 ounces of dried haricot beans freshly germinated. Of the patients on the lemon juice 53.4 per cent were cured within four weeks and of those on the germinated beans 70.4 per cent (45).

Potatoes contain the vitamine if not cooked too long, but, as the only antiscorbutic, the ration must be as much as fourteen ounces per man per day (36). In Glasgow (46), recently, a poor law hospital which had apparently been depending largely on potatoes and had been near the danger line with a normal of three cases of scurvy a year, developed fifty cases when the lack of potatoes in the fall and winter of 1916-17 caused the substitution of the potatoes by rice and bread. In this country, too, Hess (47) speaks of the development of scurvy in numerous institutions in the spring of 1916 after an exceptionally poor potato crop the previous year. In one there were more than twenty deaths, in another more than two hundred diagnosed cases and probably many latent cases which escaped observation.

Milk (48) is of only moderate value as an antiscorbutic and loses most of the value when pasteurized or boiled. Commercial condensed milk (49) is valueless and so, too, is dried milk unless the drying is done very quickly, e.g., for a few seconds at 116° (Hess and Unger) (50). Numerous observations have been made of infantile scurvy developing from use of pasteurized milk and its check by the addition of orange juice. In this connection should be mentioned a very valuable summary, though without the work of the last two years—Morse's "A Résumé of the Literature of Infantile Scurvy during the Past Five Years" in the *Boston Medical and Surgical Journal* (51). An editorial in the *Journal of the American Medical Association* (52) cites numerous recent distressing cases of infantile scurvy abroad, for instance, in Prague in 1917-18 when the much desired "raw" milk was often of doubtful "rawness," oranges had disappeared from the markets since early in the war, and other fruits and even most green vegetables were difficult to obtain and usually very expensive.

Fresh meat has so little antiscrobutic value that the Royal Society (36) states that as much as two to four pounds daily are necessary if it is to be used as the chief preventive agent, and tinned meat is completely valueless. Dutcher, Pierson, and Biester (53) find practically none even in raw beef. Their laboratory experiments do not confirm Stefáson's remarkable report (54) of his polar experiences. His habit, and that of his party in the north, was to live almost wholly on seal meat and bear meat, using not only the muscle tissue, but liver and various other organs. Often they consumed raw frozen liver. They had no cases of scurvy on this diet. However, three men, who were separated at times from the main party and depended largely on some cached foods which they had found—flour, salt pork, butter, honey, sugar, pilot bread, preserved fruit, pemmican, meat extract, dried fruit, rice, beans, and peas—developed serious scurvy. They were promptly cured when fed meat, largely raw.

One more human scurvy experience (55) illustrates a number of the points so far stated. A number of camps

of the South African Native Labour Corps were established in France during the war. The rations consisted of 1 pound of frozen or preserved meat, 8 ounces fresh vegetables, and definite quantities of mealy meal (corn) or rice, bread, coffee, sugar, salt, margarine, and tobacco. In country depots where they could pick extra fruit (apples) no scurvy occurred, but in a camp when this was impossible 40 per cent of the natives at one time showed symptoms of scurvy. The half pound of fresh vegetables probably allowed no margin for the reduction of the antiscorbutic, and yet all foods had been cooked for at least three hours. The chief part of the cure was to give lemon juice, increase the supply of vegetables and limit their cooking to forty-five minutes. In a camp where the scurvy was most severe and lasted longest it was discovered that the instruction to shorten the cooking period had been disobeyed. The condition was soon improved when the cooking was reduced to forty minutes.

In conclusion, it is plain that remarkable as are the advances in the subject, we still have far to go for anything approaching complete knowledge. We need more quantitative information as to the distribution of the vitamines in foods and their resistance to all sorts of manipulations—cooking, storing, aging. We lack knowledge of the quantities advisable for human beings of different ages. Finally, and most fundamentally, we yet await the isolation of the substances themselves in purity and the establishment of their chemical composition.

It is very difficult to say what is the importance to the average individual of giving thought to these three vitamines in choosing the diet. Most of us probably use milk or leaf vegetables (McCollum's "protection foods") to get an adequate supply of *A*, enough vegetables of all kinds and whole cereals to get *B*, and enough uncooked or little cooked foods for *C*. But the occasional moderately well-to-do individual with dietary idiosyncracies, many persons on very limited incomes, and many in institutions must be close to the danger line. Probably *C* with its marked unstability to heating or drying is the most often low in quantity, and *A* with its limited distribution second. It is more than probable, too, that all sorts of common languors and inefficiencies, and susceptibilities to many miscellaneous infections, are connected with shortage in vitamines.

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NEWS ITEMS OF THE DIETITIANS

Henrietta French has been given the position previously held by a steward at the Chevy Chase Club in Washington, D. C. This is the first time a woman has been given this responsibility in this well-known club, and so far as we know, it is the first time a woman has done this sort of thing in any large Men's Club. Another noteworthy feature is that Miss French is receiving the same salary that a man would in a similar position.

Miss Helen L. Wallace, a graduate of the Boston Cooking School, is in charge of the department of dietetics of Crouse-Irving Hospital, Syracuse, N. Y. She will have entire charge of the buying, the employees, teaching the nurses and all features of the department. Miss Wallace has had several years experience in hospitals in Springfield, Mass., Atlantic City and Philadelphia.

Miss Gertrude Brown has recently gone to Central Dispensary and Emergency Hospital, Washington, D. C., as a dietitian.

The hospitals of Louisiana have recently attracted a number of dietitians to their state. Miss Genevieve Potter is at the Presbyterian Hospital, New Orleans; Miss Helen Baker at the U. S. Marine Hospital, New Orleans, and Miss Stella Steele at the North Louisiana Sanitarium, Shreveport. Miss Potter had student dietitian training with Miss Geraghty at New Haven. Misses Baker and Steele are both from Kansas City, Mo.

Miss Blanch Dimon and Miss Katherine Bieble have finished the pupil dietitian training given by Miss Sate Harris at Massachusetts General Hospital, Miss Dimon is being retained by Miss Harris as an assistant, and Miss Bieble has joined Dr. Allen's staff of dietitians.

The New York Association of Dietitians held a meeting February 10 in the Seminar Room of the Y. W. C. A. Miss Isabel Ely Lord, Pratt Institute, talked on Educational Background in Administration and Mrs. Mary Swartz Rose, Teacher's College, discussed Essentials in Dietetics for Hospital Dietitians.

The meeting on the evening of March 8 was held at the New York Hospital. Dr. Walter Eddy, Prof. of Bio-Chemistry, Teacher's College, spoke on Problems in Army Feeding. Prof. Eddy is affiliated with the Research Clinic of New York Hospital and was Major in charge of the Food and Nutrition Section, A. E. F.

The class at Cornell University studying Diet in its Relation to Health and Disease is devoting part time to practical problems. Of the twenty-one students registered for this course, one is teaching dietetics to the nurses of the Ithaca Hospital, fifteen are doing volunteer work with the Associated Charities of the city and the others are doing some special form of work with nutrition clinics or private service. This part of the course is planned and supervised co-operatively by Miss Beattie, Superintendent of the Hospital, Miss Bassett, Director of the Associated Charities, and Lulu Graves of the Home Economics Department of the University. Miss Graves also gives the lectures included in the course.

The Dietetic Section of the Home Economics Association of Philadelphia held its regular monthly meeting February 26th at the Pennsylvania Hospital, 8th and Spruce Streets. Several phases of post-graduate courses offered Domestic Science graduates were presented by the following dietitians:

Miss Clarible McCrae, Philadelphia General Hospital,
Miss Ellen Gladwin, Jefferson Hospital,
Miss Emma Smedley, Director of School Luncheons, Philadelphia.
Miss Ethel Pentecost, Pennsylvania Hospital for Insane,
Miss Martha Deal, Pennsylvania Hospital for Insane,
Miss Evelyn Nesbit, Mt. Sinai Hospital,
Miss Ruth Gilpin, Presbyterian Hospital,
Miss Helen Weaver, Director Dietetic Kitchen,
Sister Emma Tappert, Lankenau Hospital,
Miss Helen E. Gilson, Pennsylvania Hospital.

HOTEL MEN'S SHOW

Of especial interest to dietitians and hospital superintendents will be the second annual Hotel Men's Show, to be held at the Coliseum, Chicago, the week of May 10.

Displays of the most up-to-date furnishings, equipment, and labor-saving devices for the use of hostelries, as well as a wide range of standard food products, will be shown. Addresses on dietetics will be given by Miss Lulu Graves, president, American Dietetics Association, and by Miss Flora Rose of the department of Home Economics, Cornell University.

Realizing that a visit to this exposition will be profitable to hospital executives, THE MODERN HOSPITAL has arranged for a supply of tickets of admission to the Hotel Men's Show for the purpose of supplying, gratuitously, any hospital superintendent or dietitian with such tickets as he may wish to use.

FEW NURSES BEING SENT OVERSEAS

From now on, the Red Cross will send abroad only very few specially trained nurses with unusually high qualifications. The number of American Red Cross nurses in France and Italy is constantly decreasing. Poland is reported as the only country to which additional nurses are being sent. Miss Alice Fitzgerald, recently appointed chief nurse to the League of Red Cross Societies, gave the number of nurses in Europe on November 1, as follows: France, 30; Italy, 7; Palestine, 7 (approximate); Near East, 60; Balkans, 61; Russia proper, 2; Siberia, 139 to 160; Poland, 10; Greece and Serbia, 6; Persia, 1.

GOVERNMENT NEEDS PHYSICIANS

The United States Civil Service Commission announces that a large number of physicians are needed for employment in the Indian Service, the Public Health Service, the Coast and Geodetic Survey, and the Panama Canal Service. Both men and women will be admitted to examinations, but appointing officers have the legal right to specify the sex desired when requesting the certification of eligibles. Entrance salaries as high as $200 a month are offered, with prospect of promotion in some branches to $250, $300, and higher rates for special positions.

Further information and application blanks may be obtained from the secretary of the United States civil service board at Boston, New York, Philadelphia, Atlanta, Cincinnati, Chicago, St. Paul, St. Louis, New Orleans, Seattle, or San Francisco, or from the United States Civil Service Commission at Washington, D. C.

It never rains roses; when we want more roses, we must plant more bushes.—George Eliot.

People seem not to see that their opinion of the world is also a confession of character.—Emerson.

A Chinese proverb says: "A lie has no legs, and cannot stand; but it has wings and can fly far and wide."

DISPENSARIES AND OUT-PATIENT DEPARTMENTS

Conducted by MICHAEL M. DAVIS, JR.
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NEW YORK DISPENSARIES: MEDICAL ORGANIZATION*

A section of Report made by the Public Health Committee of the New York Academy of Medicine on the New York Dispensaries.

(a) Types of Dispensary Medical Organization with Reference to Affiliation of Dispensary.—Before discussing in detail the many problems of medical organization of dispensary service, it will perhaps be helpful to classify the dispensaries included in this study according to the relation of the dispensary medical organization to hospital service and to medical instruction in undergraduate and postgraduate medical schools. On the basis of such relation, five groups of dispensaries may be defined:

(1) Hospital dispensaries in which there is a recognized coördination of the medical organization of the hospital and the medical organization of the dispensary. Such are: Brooklyn Hospital Dispensary, Gouverneur Hospital Dispensary, Harlem Hospital Dispensary, Fordham Hospital Dispensary, Lincoln Hospital Dispensary, Roosevelt Hospital Dispensary, New York Hospital Dispensary, Ruptured and Crippled Hospital Dispensary, New York Orthopedic Hospital Dispensary, Neurological Institute Dispensary, and Babies' Hospital Dispensary.

(2) Hospital dispensaries in which there is no clearly defined coördination of the medical organization of the hospital and the medical organization of the dispensary. Such dispensaries are: Mt. Sinai Hospital Dispensary, Lebanon Hospital Dispensary, St. Vincent's Hospital Dispensary.

(3) Hospital dispensaries in which there exists a coordination of the medical organization of the hospital, the medical organization of dispensary, and the teaching staff of an undergraduate or postgraduate school of medicine. Such are: Polhemus Dispensary (Long Island College Hospital), St. Luke's Hospital Dispensary, Presbyterian Hospital Dispensary, Bellevue Hospital Dispensary, Post-Graduate Medical School and Hospital Dispensary, Nursery and Child's Hospital Dispensary, Manhattan Maternity Clinic, Sloane Maternity Clinic, Knapp Eye Clinic, New York Eye and Ear Infirmary Dispensary, Manhattan Eye, Ear and Throat Hospital Dispensary, and Clinic for Functional Re-education.

(4) Dispensaries in which there is an established coördination of the medical organization of the dispensary and the teaching staff of an undergraduate medical school. Such dispensaries are: Vanderbilt Clinic and Cornell University Medical College Dispensary.

(5) Dispensaries in which there is no affiliation whatsoever of the medical organization of the dispensary with either a hospital or the teaching staff of an undergraduate or postgraduate school. Such are: New York Dispensary, Demilt Dispensary, Brooklyn City Dispensary, and New York Clinic for Speech Defect.

(b) The Medical College and the Dispensary.—Of the dispensaries included in this survey of organization only fourteen have direct affiliation or cooperative relationship with undergraduate or postgraduate medical schools. Of the fourteen, twelve are hospital out-patient departments in which there is an official correlation of the hospital medical organization, the dispensary medical organization, and the teaching staff of an undergraduate or postgraduate school. Cornell Dispensary and the Vanderbilt Clinic are independent of hospital affiliation.

The character of the relationship between the hospital dispensaries and the medical schools varies considerably. In the Polhemus Clinic, undergraduates of the Long Island College are given formal instruction as a matter

MEDICAL ORGANIZATION OF DISPENSARIES

(a) Types of dispensary medical organization with reference to affiliation of dispensary.
(b) The medical college and the dispensary.
(c) Coordination of hospital and dispensary medical service.
(d) Method of appointment of dispensary physicians.
(e) Utilization of interns in dispensary work.
(f) Total number of physicians working in dispensaries of New York City and amount of service rendered.
(g) Compensation of physicians in out-patient departments.
(h) The development of special clinics.
(i) Public health centers.
(j) Pay clinics.
(k) The Workmen's Compensation Act in relation to dispensaries.
(l) Home visiting medical service.
(m) Laboratory and x-ray service.
(n) The nurse in the dispensary.
(o) The dietitian in dispensary work.

*This is the second chapter in a series of four chapters taken from this report because of their special interest to dispensary and hospital executives. Chapter 1, "Organization, Administration, and Equipment of Dispensaries," was published in two parts, Part I in the February issue, Part II in the March issue.

of routine. In the Post-Graduate Medical School and Hospital Dispensary, instruction is an essential feature of the dispensary program, the entire dispensary program being based on such instruction. Bellevue Hospital Dispensary may be utilized occasionally for the instruction of students of the medical schools which are affiliated with the Bellevue Hospital, namely, Cornell University, the College of Physicians and Surgeons, and the New York University. Each of these institutions is responsible for the medical work of that division of the dispensary which bears the name of the medical school.

Students of the College of Physicians and Surgeons rarely visit the dispensary, but students of Cornell and New York University Medical College visit the dispensary often. There is, however, no definite program of teaching in the dispensary, and the dispensary work has not been developed with this end in view, since each of the three schools named has its own dispensary department in its own building.

St. Luke's Hospital, which has a cooperative relationship with the College of Physicians and Surgeons, also permits the instructors at the College of Physicians and Surgeons who are on the St. Luke's Dispensary staff, to utilize clinics for teaching purposes, but instruction here is likewise occasional rather than routine and designed chiefly for summer work of students. The Sloane Maternity Hospital Dispensary has an affiliation with the College of Physicians and Surgeons and its clinics are largely used for the instruction of students. The Manhattan Maternity Clinic and the Nursery and Child's Hospital Dispensary have a cooperative relationship with Cornell and Physicians and Surgeons, respectively, for the instruction of students of these institutions in obstetrical work in the homes of patients. In the Knapp Eye Clinic, the New York Eye and Ear Infirmary, and the Manhattan Eye, Ear and Throat Hospital Dispensary, postgraduate courses are given and undergraduates are occasionally given instruction through special arrangement with the dispensary physicians who may be members of the Faculties of medical schools. The director of the Knapp Eye Clinic, for example, is also in charge of a class at the Vanderbilt Clinic and frequently brings students to the Knapp Eye Clinic. The Clinic for Functional Re-education has been affiliated with Cornell Medical School and students of Cornell are given instruction by the members of the medical staff of the clinic, the majority of whom are also members of the Cornell Faculty.

In the institutions such as Cornell Dispensary and Vanderbilt Clinic, which are definite departments of Cornell Medical School and the College of Physicians and Surgeons, respectively, the relationship of the teaching staff to the dispensary medical staff is practically the same. Some members of the teaching staff are made responsible for clinic work and certain instructors are designated as clinic physicians. All members of the dispensary staff do not receive appointment to the teaching staff of the medical college, but there is opportunity for junior members of the dispensary staff to become members of the teaching staff of the medical school as they demonstrate special ability, and as vacancies arise.

In the remaining dispensaries included in this study, the instruction of undergraduate and postgraduate students has no part in the dispensary program. A member of the dispensary staff who happens to be also a member of the teaching staff of a medical school may bring his students to the dispensary, but this relationship is wholly informal and changes, of course, with changes in the dispensary medical staffs.

Teaching Dispensary Is Efficient

The rudimentary development of dispensary medical work for teaching purposes in New York is regrettable. Teaching is a powerful stimulus to efficient dispensary work. Just as the teaching hospital is, generally speaking, more efficient than the non-teaching hospital, so the teaching dispensary is usually more efficient than the non-teaching dispensary. The responsibility for teaching places upon the dispensary physician the obligation of keeping up with the progress of medical science; it stimulates him to research work and to more careful study of patients, in order that he may demonstrate his work more effectively; and it requires him to use methods of precision which otherwise may not appear essential to the routine of dispensary practice.

A survey of the field brings out the fact that both the medical schools and the dispensaries have overlooked large opportunities for cooperative work. This is particularly true in the case of special dispensaries, such as the three large orthopedic dispensaries, the Neurological Clinic, the Babies' Hospital Dispensary, the Clinic for Speech Defects, the Clinic for Functional Re-education, and others. These clinics offer great opportunities for students in the study of special types of disease not ordinarily met with in general dispensary practice, and yet, with few exceptions, these opportunities are not used. It is patent that with the large number of dispensaries in the city of New York and the comparatively small number of undergraduate students, not all the facilities could be taken advantage of for this kind of instruction. Should New York, however, realize the existing opportunity of becoming the medical center of the country, and of the world perhaps, the vast out-patient clinical material could be used in postgraduate instruction. In this connection a few words about the "Minnesota plan" will be of interest. There the State University has entered into arrangements with the Mayo Foundation for the purpose of developing postgraduate medical specialization along scientific lines. All the instruction during three years is carried on in connection with the University Medical School at Minneapolis. The first year is devoted to out-patient work in a chosen specialty. The second year is divided between out-patient and hospital work, and the entire third year is spent in the hospital. Upon the presentation of an approved written thesis, the successful candidate is given the degree of Doctor of Philosophy in the chosen branch of medicine. Degrees of Doctor of Philosophy in Pediatrics, in Ophthalmology, etc., are issued. At first the degree of "Doctor of Science" was given, but when it was learned that some universities confer that degree *honoris causa*, the degree of Doctor of Philosophy was substituted.

If some such plan or a similar plan could be worked out in connection with the medical schools of this city the out-patient departments of our special institutions would offer excellent material for intensive study.

It can be readily seen from this analysis that the problem of medical organization is quite different in each group. There are also important differences in the problem of individual dispensaries in the first four groups, depending upon the extent to which the medical organization of the dispensary is brought into coordination with hospital medical work or with instruction of undergraduate or postgraduate students.

(c) Coordination of Hospital and Dispensary Medical Service.—It is generally recognized that the out-patient department of a hospital has, other things being equal, the advantage over a detached dispensary in several respects. The out-patient department of a hospital can and often does make use of the laboratories and x-ray equipment of the hospital; the patients can be referred to the hospital for observation in cases of obscure conditions, and the out-patient department physicians usually have the privilege of observing in the wards the cases they refer from the clinic, if they choose to do so; the hospital facilities are often availed of to afford out-door department patients the opportunity of a rest over night in the case of minor operations, or when such diagnostic tests as lumbar punctures are resorted to; upon discharge, hospital patients are frequently referred to the out-patient departments for continued treatment, and a link affording the possibility of scientific study of disease is thereby established; and finally, there is greater distinction for physicians to be associated with a hospital out-patient department than with an independent dispensary.

The above mentioned advantages could be accentuated and several additional ones of importance secured, if a closer correlation between the out-patient medical organization and that of the hospital could be established. The welding of the two organizations into one would facilitate the development of a single medical standard for the institution as a whole, and the existing chasm separating medical ideals and practices in the two sections of the same institution would be bridged. Such an arrangement would redound to the benefit of everyone concerned. The hospital would profit from the more careful selection by the dispensary physicians of patients for admission to the wards; the dispensary physicians would be better able to exercise supervision over patients discharged from the hospital, because of a better understanding of hospital treatment given; a "*rapprochement*" between the dispensary and the hospital would be conducive to the development of a satisfactory basis for training physicians in both hospital and dispensary work; and finally, the demand for salaries in dispensary work, which is becoming more and more insistent, could in part be abated by compensation in professional recognition and advancement.

Difficulties of Co-ordination

The practical difficulties which present themselves in the bringing about of a real and effective coordination between the two medical groups may, perhaps, be summarized as follows:

(1) Owing to the large size of the dispensary medical staffs, it is usually difficult, except in special dispensaries, to arrange a schedule of hospital attending service which will permit all dispensary physicians to act as hospital physicians. The term of hospital service will necessarily have to be very short and rotations frequent. This is less desirable from an administrative point of view than long tenures and few rotations.

(2) It is hardly feasible to expect of physicians enjoying a large practice to give the amount of time required for both hospital and dispensary work during a given period of service.

(3) Dispensary experience, because of its present routine nature, often reacts in a detrimental way upon the physicians forced to work for many years in the rush of dispensary practice without scientific supervision. They are likely to become wedded to practices and methods which might and often do unfit them for hospital work. Furthermore, the appointment to hospital positions of surgeons on the basis of their dispensary surgical work alone would be impractical; and finally,

(4) In certain hospitals, dispensary physicians would not be eligible for positions on the hospital staff because of the limitations of the hospital service due to racial discrimination.

Recognizing these difficulties, hospital authorities proceeded along the lines of least resistance and developed their medical organizations in both the hospital and the dispensary with the idea of meeting existing conditions and at the same time bringing about some kind of affiliation of the two medical groups, which differs from institution to institution.

As already stated, in three of the hospitals and dispensaries included in this study there is no coordination between hospital and dispensary medical organization. In the remaining dispensaries, the existing correlation can be divided into three broad groups:

(1) Attending physicians of the hospital are designated as medical directors "nominally" in charge of dispensary work. Supervision is "nominal" rather than actual, and the hospital attending physicians are not required to engage in dispensary work.

(2) Attending physicians of the hospital are designated as chiefs of clinic and are required to be in actual attendance in the dispensary. The amount of time required of them in dispensary work, however, varies widely.

(3) All dispensary physicians hold corresponding positions on the hospital medical staff, and patients admitted to the hospital from the dispensary are taken care of by the dispensary physicians. This type of organization is found only in a few dispensaries, namely, the Knapp Eye Clinics, the Manhattan Eye, Ear and Throat Hospital Dispensary, and the New York Eye and Ear Infirmary.

The first arrangement is the usual one in most out-patient departments of hospitals, but it is decidedly unsatisfactory from the standpoint of efficient administration. The members of the hospital medical staff who are made "nominally" responsible for dispensary work take little part in the medical work of the dispensary; their supervision is "nominal" in every sense of the word, and responsibility thus imposed usually means irresponsibility. The mere attachment to a dispensary medical organization of the name of a skilled physician or surgeon adds nothing to the efficiency of the dispensary.

The second system of coordination has the merit of requiring actual attendance of hospital physicians in the dispensary, but since the amount of attention which they shall give to the dispensary is not definitely fixed, the result is that they delegate their authority to others and attend the dispensary as little as possible. The end result, where attendance of such physicians in the dispensary is not definitely required, is that they become as in the arrangement first described, merely the "nominal" heads of the clinic service, without actually doing any work, either in supervision or treatment.

The third system is the most satisfactory, but its application is limited to special hospital dispensaries, such as those named above. It is possible, where the amount and nature of clinic work is limited, to give all clinic physicians an opportunty to do hospital work, an opportunity which, however, cannot be given on the same basis in large general dispensaries having a correspondingly large medical staff. In the latter institutions the inclusion of all dispensary physicians in the hospital staff would seriously hamper efficient hospital work.

A suggested plan of organization has been worked out and is presented among the recommendations of the committee.

(d) Method of Appointment of Dispensary Physicians.—With regard to the method of making appointments to the medical staff, the variations among the dispensaries are about the same as those which exist regarding all other administrative procedures. The responsibility for appointments is vested in chiefs of clinics, in medical boards or parts thereof, in boards of trustees or dispensary committees, in the executives or in bodies representing the several parts of the administrative organization. On the whole, it may be said that without reference to the appointive body, the method of selection, with few exceptions, is lax and bears all the earmarks of indifference. In one institution appointments are conferred without even an application blank having been filled out by the candidate.

At the Polhemus Clinic the applicant for a position on the dispensary staff applies first to the chief of the clinic in which he wishes to work. The chief of clinic makes a temporary trial of such physician's ability and may then recommend his appointment by the dispensary committee, which includes representatives of the board of governors of the hospital, medical school, and dispensary service. At the Knapp Eye Clinic physicians are appointed first as clinical assistants by the executive surgeon of the clinic. If their service is satisfactory after a period of trial, appointment as clinic physicians may be made permanent. At the New York Eye and Ear Infirmary, the medical board recommends to the board of directors the appointment of the physicians. The board of directors confers appointments of "clinic assistants" for a six months' probation period. Following an examination by the medical board at the close of this period, such appointments may be made permanent by the board of directors if the medical board approves. At the Manhattan Eye, Ear and Throat Hospital Dispensary, clinical assistants are also appointed for a six months' probation period by the board of directors on recommendation of the medical board. If the services of the clinical assistants are satisfactory, appointments may be made permanent.

In other dispensaries the procedure of appointment varies considerably. The rule is for formal appointments to be made by the board of directors, trustees, managers, or governors of the institution on the recommendation of the medical board of chief medical officers. Sometimes a special committee of the board of trustees is charged with appointing power. At the Mt. Sinai Hospital Dispensary, for example, appointments are made by a special committee—the dispensary committee of the board of trustees; at the New York Dispensary a committee on medical appointment or the board of directors is responsible for appointments. In only one of the institutions studied is full responsibility for appointment of dispensary physicians vested wholly in the superintendent, *i. e.*, the Lincoln Dispensary.

In Bellevue Hospital Dispensary, in which each of the three medical schools—Cornell, Physicians and Surgeons, and University and Bellevue—is responsible for a special division, the faculty of the medical school is required to recommend appointments to the medical board of Bellevue and Allied Hospitals, which is authorized to make appointments. In the fourth, or "open," division applications are made by physicians directly to the medical board which makes the appointments. At Cornell, the professors of the Medical College, who are nominally the heads of the various departments of the dispensary, recommend appointments to the dean of the medical school, who nominates for formal appointment by the president of the University the persons recommended. At Vanderbilt, chiefs of clinic present nominations to the faculty of the College of Physicians and Surgeons, which recommends appointment by the board of managers.

From this brief review of procedure it is apparent that there is lacking in most dispensaries a satisfactory plan for the selection of dispensary physicians. Too much is taken for granted with regard to their qualifications. The lack in the majority of dispensaries of any practical tests of a physician's competence—a probation period—prior to his appointment does not promote efficiency and is the result of the existing difficulty in inducing competent men to go into dispensary work under present conditions.

Utilization of Interns in Dispensary Work

(e) Utilization of Interns in Dispensary Work.—The utilization of hospital interns in dispensaries which are out-patient departments of general hospitals is the exception rather than the rule, and in none of the general hospital dispensaries studied has a definite program of dispensary work for interns been devised. In certain of the special hospital dispensaries, however, namely, Manhattan Eye, Ear and Throat Hospital Dispensary, the New York Eye and Ear Infirmary Dispensary, the Knapp Eye Clinic, the Ruptured and Crippled Hospital Dispensary, the Manhattan Maternity Clinic, the Nursery and Child's Hospital Dispensary, and the Babies' Hospital, interns are required to do a definite amount of dispensary work as part of their course of training. In other institutions they are permitted to work in the dispensary if they so choose during their leisure, and sometimes they are called to act as substitutes for absent dispensary physicians. During the war period hospitals have found it necessary to call upon their interns for dispensary work more frequently than before, owing to the shortage of physicians. The assignment of interns to dispensary work is, however, in all cases except those mentioned, informal and occasional, and the fact is that the interns do not spend any time in the dispensary if they can avoid it. In some institutions the authorities, recognizing the inferior quality of work in the out-patient departments, consider the service in the dispensary on the part of the intern as injurious to his training. A certain amount of routine work in a dispensary is undoubtedly valuable experience for every intern, as the relationship of the intern and patient in the dispensary is quite different from that of the intern and the patient in the hospital. In the latter instance the patient is in bed under a régime and subject at all times to observation and control. The dispensary patient is an individual whose personal peculiarities, habits, home environment, and social and economic relations must oftentimes be studied and adjusted. Dispensary practice, when of an acceptable character, has a broadening effect and comes nearer the type of practice which will engage the average intern's attention when he becomes a practitioner. A plan of rotation of intern service between hospital and dispensary presents no insurmountable difficulties. It might be necessary to increase the number of interns in certain institutions so that the hospital needs could be fully provided for. While some institutions would have no difficulty, it would probably be difficult to secure a sufficient number of interns in all institutions.

(To be continued.)

A sponge to wipe out the Past; a rose to make the Present fragrant; and a kiss to salute the Future.—Hindu proverb.

HEALTH AND MODERN INDUSTRY

Conducted by BARROW B. LYONS
15 Fort Washington Avenue, New York City

HEALTH SERVICE FOR INDUSTRIES OF MODERATE SIZE

By ALFRED E. SHIPLEY, M.D., D.P.H., Director of the New York Industrial Health Bureau.

In the beginning, the phase of industrial health work which received principal consideration in industry was first aid, or emergency measures. Preventive health measures, however, soon followed as a logical sequence, for two reasons: first, their application reduced the emergency needs, and second, preventive measures, intelligently applied, had a direct effect upon the efficiency of the workers and the output of products. When these results were apparent, the field of industrial health service broadened into a well balanced program embracing clinical and preventive medicine and surgery.

Such a complete service, however, has been limited until recently to the large industrial corporations. Because of their great size and their methods of organization, these plants have developed their own medical or health departments under competent and well paid medical directors, and have employed an adequate staff of physicians, nurses, and sanitarians.

Health supervision, if of any value in industry, is, of course, just as necessary in the moderate sized and smaller plants as in the larger corporations. Many of the smaller concerns recognize the value of health supervision of their employees, but do not see how they are going to secure a service of a competent character commensurate with their size and needs. Yet the sum total of people employed in these smaller industries far exceeds the number engaged in the large corporations. Mock states that approximately 8,000,000 of the workers of the nation are under health supervision, but there still remain 30,000,000 of our people who are responsible for production of some type in this country who are not covered.

Adequate health service must in some way be provided for these smaller industries. There are, in general, three ways in which this health service may be rendered:

(1) By the haphazard method used in some factories, of referring the cases to the office of some local physician, or else of calling him to the plant when his services are needed. This cannot meet the situation, for as a rule the doctor looks upon the work as more or less incidental and is not thinking in industrial terms. To him the case is merely another medical or surgical one; he does not see the relation of the injured or ill worker to his job. Furthermore, health work must be followed up regularly and persistently to give best results. An incidental service of this character will be found inefficient and in the long run very expensive.

(2) By all of the industrial establishments of a given community combining to support a service for their own needs. This is the ideal and statesmanlike way of solving the problem, but to do this effectively, the establishments must be fairly well concentrated, and favorable conditions of this kind do not obtain with the majority of industries.

(3) By the organization of private industrial health companies or bureaus, such as the one of which the writer is director, which should be able to give industrial establishments a competent service on a part time basis, according to their size and needs. Organizations of this type have a large field of usefulness.

Health Bureau Organization

Such bureaus should be prepared to give to industrial and mercantile concerns, a well balanced medical, surgical, and sanitary service, which combines the emergency and preventive features in such manner as to produce the most effective results at minimum cost.

The field force should be under the direction and immediate supervision of men qualified by vast experience in the fields of medicine and sanitation, in order to insure performance of technical service of the highest character. Futhermore, the staff at headquarters should be constantly analyzing the work performed by the field force, and planning and developing new and more effective means of securing results. This overhead service should be available to all of the establishments for whom the bureau is giving service, thus assuring to the smallest industry all the advantages which the largest corporation can secure through the employment of full-time, high salaried industrial health directors.

The field force should include physicians, surgeons, industrial hygienists and sanitarians, nurses and nurses' assistants, and home workers. When the needs of a factory have been determined, the service should be arranged so that maximum results are obtained at minimum cost. For instance, the work of the physicians should be limited to the technical medical and surgical work, leaving to the nurses re-dressings of surgical cases and similar duties. Again, in making physical examinations, the physician should not be required to write up the record cards; the nurse or some other assistant should do this work. Many of the minor nursing needs can be done by nurses' assistants provided they are under the close supervision of a trained nurse. In fact, the development of our trained nurses into supervisors over forces of practical assistants is, in the opinion of the writer, the solution of the problem of meeting the growing demand for nursing service in the industrial and other public health fields.

Careful thought and attention must be given to this matter of duties to be performed by the field staff, for it means the difference between a wasteful and an economical service. As a rule business does not object to spending money for service rendered, but it does insist upon getting its money's worth.

Very few industries will be prepared to take up a complete health service at once. In fact, the evolution of the work as a whole, will apply to the individual plant. That is to say, a factory usually installs a clinic room at first to care for its emergency work, and finding it pays, adds the preventive features gradually until a complete service is in operation. It is well, however, to place before the officers of an industrial plant, an outline showing what a comprehensive program includes, because very few managers of factories know definitely what health work means. For practical purposes the writer uses the following outline:

The service is of three kinds:

(A) First Aid and Emergency Measures.

(B) Preventive Measures.

(C) General Administrative Measures.

(A)—*First Aid and Emergency Measures.*

This includes those features which are necessary in caring for sickness and accident cases in the factory and the homes of the employees, such as

(a) Daily visits to the factory by physicians or nurses or both, to attend to emergency cases.

(b) Arrangements for hospital care when this is necessary.

(c) Visits to homes of employees who are sick or injured.

(d) Dental service if desired.

(B)—*Preventive Measures.*

This embraces features which aim to forestall accident or sickness; to bring about better conditions of health of employees; and to show workers how to obtain better results with the proper expenditure of energy. These features are—

(a) Medical examinations for employment—to discover and correct physical defects which would be detrimental to the worker and to the employer, such as hernia, weak heart, defective vision or hearing.

(b) Periodic medical examinations to prevent disease—to discover in their incipiency, abnormal health conditions which would disqualify a valuable worker if allowed to develop. In this way also infectious diseases may be discovered, dangerous to the individual or to his fellow-workers with whom he is in daily contact.

(c) Supervision of factory sanitation and hygiene—which protects the workers and keeps them in the best physical condition, with resultant benefit to themselves and to the company for which they work. These measures include proper light, ventilation, toilet and washing facilities, and personal hygiene.

(d) Reduction of industrial health hazards—by careful study and observation of the effect of materials used and methods employed by the various employees in their work, and the correction of conditions found to be detrimental.

(e) Inspections to reduce accidents—to insure the proper attention and attitude of the workers themselves, without which accidents will occur despite the installation of safety devices.

(f) Study of work methods—in so far as they relate to the physical condition of the workers themselves, such as faulty postures while at work, fatigue produced by prolonged or improper muscular motions, improper height of work benches, and similar matters.

(g) Health education features—such as group talks, health exhibits, bulletins and pamphlets, moving pictures, and especially personal talks to individuals who need such attention.

(h) Investigation of home environment—to discover and suggest correction of conditions which impair the physical condition of an employee, with resultant loss to himself, his family, and his employer.

(i) Maintenance of proper records of service given with analyses and deductions therefrom to guide in securing results.

(C)—*General Administrative Measures.*

This includes those features such as the correlation of data from the various industries, their analysis, and the application of principles and new facts discovered therefrom. Some of these features are—

(a) Close and constant supervision of the field force of physicians, nurses, and home workers.

(b) Compilation and analysis of records and other data for use by the industries, which are thus enabled to compare their work and results with that obtained in other plants.

(c) Advice and testimony re law suits, such as the evaluation of injuries or physical conditions, and the determination of lessened earning capacity.

(d) Follow-up of the various procedures incidental to the Workmen's Compensation law.

(e) Professional opinion and advice as to industrial health requirements and laws, with supervision of their application in the factories.

(f) Current information as to new laws, latest literature, and new features with respect to industrial health.

Essentials of Clinic Service

The installation and equipment of the clinic room will depend to a considerable extent upon conditions in each factory. Many places are in need of more space for production purposes, and can ill afford room for starting a clinic. Considerable thought, therefore, must be given to a more or less standardized arrangement and equipment of the clinic room which will adapt itself to contraction or expansion to meet conditions. Then, too, the equipment must be suited for industrial work. Beautiful white furniture is ideal, but not always practical. The writer well remembers one of the first industrial clinics which he equipped in a rubber manufacturing plant. White enamel furniture had been purchased, including chairs and stools, and their appearance after use for a week during which rubber cement from the clothes of the workmen had been smeared on them, was pitiful to behold. Efforts to remove this rubber cement only made their appearance worse.

If space is very limited, a room 10x15 feet can be made to answer for clinical purposes. The necessary furniture, work equipment which includes instruments and medical and surgical supplies, and incidentals can be purchased for about $250, but, of course, this equipment is by no means elaborate. It will do, however, until the service has proven its value, and experience shows that factories are willing to invest money after they are convinced that it pays.

In the administration of the clinic, a sufficient stock of supplies should be maintained currently by taking inventories at stated periods, say once a month. In the treatment of patients, it should be so planned that the least possible time is taken away from their work. A definite hour or hours at which patients are to be seen at the clinic should be established, and appointments thereto made at certain intervals. Experience shows that five minute intervals between appointments is sufficient, as an average, to care for the clinic needs. Apart from the emergency cases which of course occur at all times during the work-day, these stated hours should be observed very strictly. By these appointments, the possibility of many employees' waiting for attention at the same time is avoided, thus preventing waste of time.

It is hardly necessary to say that careful consideration should be given to each patient who comes to the clinic. The industrial physician has unusual opportunities to gain the confidence of the workers, provided he secures the respect of the employees. If he does this, he will become an important part in the development of better industrial relations between the employee and the management. Such relations, however, will not be secured by treating the employees merely as part of a big industrial machine, as some physicians engaged in this work have done in former years. Men of this kind are contemptuously referred to as "Company doctors," and their inconsiderate treatment of workers in some of these plants has left impressions which require the utmost tact of the modern industrial physician to efface.

Character of Physical Examination

The physical examination of new or regular employees should be of a practical character, that is, covering those physical conditions which apply to the industrial life of the individual, and to the company employing him. Enthusiasm for research work should not lead the physician into the fields of medicine which do not directly concern the industrial life of the worker. With knowledge of previous employment, and of the work the applicant is about to take up, the physician should pay special attention to physical conditions directly concerned with the job to be filled. For instance, needle workers require careful eye tests, lead workers special inspections of the teeth, laborers required to do heavy lifting, close examinations for weak inguinal rings, and workers who are on their feet all day, inspection for flat feet.

In the majority of cases, physical defects discovered can be corrected so as to enable workers to take up the vocations for which they have applied, and not be handicapped as to their working ability and earning power. In those few cases where it is necessary to reject applicants because of defects, the conditions found should be explained frankly, and suggestions made as to the kind of work which would be suitable and safe. A flat rejection without explanation leaves the individual full of doubt and dread, and is not fair to the man.

Sanitary Survey Essential

A complete sanitary survey should be made at the time the service is installed. This should be done separately for each room or group of rooms in which a given process of the industry is being performed. While general sanitary measures, such as toilet and washing facilities, apply to all parts of the plant, the various processes create environmental conditions which differ to a marked degree in the rooms where they are housed. For example, processes in which steam is employed give rise to excessive humidity and have a different effect upon the workers than processes necessitating dry heat. Proper lighting for needle and office workers is of greater importance to them than to a group of employees in a shipping department.

A sanitary survey should include attention to environmental conditions, which, as the name implies, have to do with the surroundings of the workers, and to personal factors, or those which evidence themselves directly upon the workers. The writer in his service includes the following factors in his survey. Each of these factors is considered from many angles, but these details are not given here. For instance, under ventilation, consideration is given to the method used, its adequacy, dust, gases and fumes, free flames without vents, still air, ventilation of the various processes, and air tests. In this way the survey is made in the following order:

Environment—1, floors; 2, walls; 3, ceilings; 4, windows; 5, lighting; 6, ventilation; 7, temperature; 8, sweeping; 9, safety devices; 10, chairs, work benches, etc.; 11, toilets; 12, washing facilities; 13, drinking water; 14, lockers; 15, dust; 16, dirt; 17, disorder; 18, poisons.

Personal—The effect of conditions upon the worker as to 1, eyes; 2, ears; 3, nose; 4, mouth; 5, skin; 6, scalp; 7, hands; 8, miscellaneous physical effects such as cough, anaemia, etc.; 9, clothing; 10, inactivity; 11, fatigue; 12, injuries; 13, poisons; 14, infections.

A complete and thorough survey of this character at once brings out defective or improper conditions which should be remedied promptly, or discovers the use of improper methods which should be corrected. At certain intervals, either weekly or monthly, sanitary inspections should be made by a physician or a sanitarian, which cover in a general way the points just outlined, and give special attention to features which previous inspections have found necessary to follow up more closely. In addition, the regular duties of the nurse should include a daily sanitary inspection covering general features, such as cleanliness of the rooms and toilets, proper ventilation, etc.

The prevention of accidents is effected to a large degree through the use of adequate guards and other appliances, and therefore is a matter primarily under the jurisdiction of the engineering force or department of an industry. Nevertheless, carelessness or inattention on the part of the workers, or poor physical conditions, such as defective vision or fatigue, result in accidents despite the use of safety devices, so that the prevention of accidents calls for the closest cooperation between the engineering and the health services. Many of the liability insurance companies who insure industrial establishments against accident claims which come under the Workmen's Compensation law, allow a considerable reduction in the premiums when the safety and first aid services are well organized.

Health Education Valuable

Health Education is an important phase of industrial health work, and may be provided in several ways. The appeal to the individual is, perhaps, the most effective method; therefore the clinic should be used to full advantage by giving advice of special and general character to the patients as they come under the observation of the doctor and the nurse. In the course of a period of six months, it is surprising how many different individuals are seen at the clinic—a majority of the workers at least.

Talks to groups can be given at the noon hour or other times. However, formal gatherings of this kind are not as effective as are informal chats on appropriate health topics addressed to groups of workers while they are busy at their tasks. For instance, a talk to needle workers on the care of the eyes, while they are busy at work, enables the physician to point out individual faults; the subject is thus driven home more forcibly.

Health exhibits covering industrial subjects, accidents, and home and social conditions directly or indirectly affecting the working ability of the employee, can be displayed in prominent parts of the factory. These exhibits are more effective if they are changed frequently or are shifted from place to place as a circulating library.

Bulletins on seasonal topics can be posted on bulletin boards or mimeographed for general distribution. In the various plants under the direction of the writer such bulletins were distributed to each employee during the recent

influenza and grippe epidemic. In one of the plants twenty-four health assistants, employees, selected from the various rooms of the factory, to aid in the conduct of health matters, were called together, and a number of these bulletins given to each one for distribution to the employees in his room, before the close of the day's work. By such organization, information and warnings can be communicated very rapidly to all of the twelve hundred workers in that plant. As the workers were urged to take these bulletins home to their families, it is safe to say that four to five thousand people were reached just through the work in this one plant. The value of such work as supplementary to the health department's efforts in any community is very apparent.

Pamphlets on industrial health topics should be placed on tables easily accessible to the workers, such as those in the waiting room to the clinic or in the main entrance hall for employees. This is more tactful and effective than forcing the pamphlets upon the attention of the workers, who often resent such actions.

Moving pictures of an industrial health type are very few so far, but where a factory is using a moving picture apparatus in its general education program, these health films can be included to advantage.

Proper Record-Keeping Important

The installation and maintenance of proper records are just as important for health work as they are for other service phases of industry. They furnish the guide posts by which to estimate the results of work performed, as well as the basis for expanding the service intelligently. These records should be as simple as possible, yet should furnish sufficient data for proper analysis. In the service of the writer, the following forms and records are included:

1. Daily clinic sheet showing number of patients, name of each, the department in which each works, whether medical or surgical case, new or return case, the diagnosis and action taken.
2. Clinic appointment card, sent early in the morning by the foreman of the department where the employee works, to the nurse for appointment with the doctor.
3. Clinic appointment sheet, arranged by five minute intervals, for use by the nurse.
4. Individual history card, kept for each employee requiring clinic or home visit attention. Chronologically details the various conditions requiring attention (transcribed from the daily clinic sheets) and the visits to absentees.
5. Medical examination card, giving industrial health history of the new employee, with a record of conditions found on physical examination. This form is used also for recording examinations of regular employees.
6. Accident report card, showing date and time of accident, where and how it occurred, nature of injury, disposition of case, progress of case, return to work, and final termination
7. Report of accident to Compensation Commission as required by law.
8. Daily reports of sanitary inspections made by nurse, covering features such as floors, walls, ceilings, toilets, washing facilities, ventilation, thermometer readings, condition of first aid kits or jars, in the various departments.
9. Report of periodic inspections by sanitarian.
10. Daily absence report presenting statistics concerning absence due to sickness, and due to other causes.
11. Report of absentee visits, with results and information secured.
12. Monthly summary of clinic work, showing cases seen each day.
13. Monthly summary of clinic work, grouped into medical and surgical cases, new and return, whether seen by physician, nurse, or health assistant.
14. Monthly analysis of clinic work, divided by departments, showing various kinds of medical and surgical cases, with proper percentages for purposes of comparison.
15. Monthly analysis of accidents, showing character, distribution, etc.
16. Monthly summary of physical examinations, showing defects found, proportion to number examined, etc.
17. Nurse's daily report, showing time spent at clinic, making up supplies, sanitary inspections, absentee visits, and clerical work.
18. Monthly summary of nurse's daily reports.
19. Physician's report either daily or weekly, divided in similar manner.
20. Monthly summary of preceding.
21. Record of medical and surgical supplies purchased, and required to be on hand.
22. Monthly inventory of equipment and supplies on hand,
23. Monthly report of the Health Service to the company.

A standardized system of records used by many industries enables fair comparison of the work of one factory with another. In a bureau system of health service such as the one being described, a fair comparison of the work performed in the various plants is therefore possible, and the correlation of such data leads to general conclusions which can be applied with benefit to all the industries concerned.

To be successful, health work in any industry, large or small, must recognize its intimate relation to all other phases of personnel work, of which it is only a part. While the service now recognized under this title of personnel has only been segregated as such within the past few years, still it is sufficiently organized to show its division into four main phases, viz., employment, health and safety, general employee service such as recreation, lunch rooms, libraries, mutual benefit funds, etc., and finally, the cultivation of better industrial relations through shop committees, works councils and similar organizations. The mere mention of these activities, is sufficient without going into details to show how closely the health service is tied up with them. In fact, industrial organization is very complex, and, like the human body, each part is related to and dependent upon all others. This is why the physician or nurse who wants to take up industrial health work must get away from thinking in terms of the individual exclusively, and think along group and community lines.

WORK OF POLISH GREY SAMARITANS

The first unit of twenty Polish Grey Samaritans, a group of Polish American girls who are doing social service work in Poland, has taken charge of the nurseries in Warsaw, and succeeded in lowering the death rate the first three weeks they were there. They have also established soup kitchens under the Polish Government at which they feed hundreds of under-nourished children daily. These Samaritans are girls trained in this work who were moved by the pitiful conditions in their mother country to go back and share with their people the benefits which they have derived from American education and opportunities.

OCCUPATIONAL THERAPY, VOCATIONAL RE-EDUCATION AND INDUSTRIAL REHABILITATION

Conducted by DOUGLAS C. McMURTRIE, Secretary Institute for Crippled and Disabled Men and MRS. CARL HENRY DAVIS, Adviser in Occupational Therapy, 2929 Broadway, New York City

MENTAL RECONSTRUCTION THROUGH OCCUPATIONAL THERAPY

By META L. ANDERSON, Supervisor, Binet Classes, Schools and Classes for Defectives, Newark, New Jersey; Head Reconstruction Aide Hospital 214, A. E. F.

"There are but two things in the treatment of these cases," said a medical director of high standing, when speaking of the so-called "shell-shocked" cases in the psychiatric hospitals of the American Expeditionary Forces, "and they are suggestion and occupation."

If this statement is true, occupational therapeutic treatment deserves the keenest consideration from everyone working with these cases, and the highest skill on the part of the occupational workers.

In order to work intelligently in the occupational field, the workers must ever bear in mind the ultimate purposes of the work. In order to assist their patients in getting the most possible out of the work, the physician must know, when he gives them their assignments, what help he expects them to get. The aims, therefore, are frequently individual, and differ with various cases.

Generally speaking, however, the aims for the various groups of cases may be fairly closely defined. To the so-called "shell-shocks" cases, found in the psychiatric hospitals of the A. E. F., who come to the occupational work thinking they are blind, deaf, mute, paralyzed, and generally unfit, work must be given which will send them out with full use of their bodies and with a greater feeling of power to meet the problems of life. To the curable insane patients, work must be given which will help to reconstruct them mentally, and which will help them to re-enter society and keep their footing among the uncertainties of existence in a more or less complex life. For the incurable insane, work must be found which will render them more stable and less of a menace to the community. To the feebleminded, work must be given which will definitely train and fit them to take their places in the industrial life of the community.

The fact that many members of all of these groups will enter the industrial world is to be recognized, and it is for the workers to accept this fact and meet the conditions with constructive work. What, then, are the principles underlying constructive work which will meet these conditions?

In general there are two essential features of successful occupational work; it should be adapted to the environment, and it should inspire in the patient the feeling of pleasure and self-respect which comes from being useful, and the feeling of power which comes from progressive daily achievement.

Work Adapted to Environment

Occupational work should not be a thing too much apart from the rest of the world in which the patient lives, whether this be in the environment of an institution, a hospital in the A. E. F., or a part of the public school system. The work will have a much more vital interest for the patient if in some way it has immediate bearing upon his daily life.

As an example of the adapting of work to environment, the practice in the psychiatric hospitals in France may be cited. When Base Hospital 214 moved to its new quarters, the buildings lacked many conveniences which would have made life there more comfortable. The shop, as was named the place where the occupational work was carried on, was called upon to meet the emergency, and met it excellently. In the shop the patients made desks, tables, filing cabinets, and letter trays for the offices; they made medicine cabinets, tables, ash trays, and decorations for the wards; they made writing-paper racks, sideboards, arm-chairs, and tables for the recreation huts. That the pressure exerted on the workers to furnish all these things and many more was very heavy is undoubtedly true; but that this pressure had marvelous therapeutic value when it was passed on to the patients in such a way as to become a definite force in their mental and physical upbuilding, cannot be denied. The patient's knowledge that the work he was doing was making the hospital of which he was a part a more comfortable place in which to live, furnished an incentive which often lead to his doing a normal day's work; and the satisfaction which he felt at the productivity of his efforts reacted most beneficially upon his mind and health.

Progressive Achievement Aim of Work

Occupational work which has for its aims usefulness, and progressive daily achievement, produces excellent results in the patients.

A great teacher once said that all the desires of the race mind could be reduced to the desire for health, wealth, love, and usefulness; and surely usefulness will hold its own with the rest of the group. As a striking example of the pleasure that useful service may bring, the following story of a feebleminded child may be told:

An official was visiting the work of the feebleminded in a certain school. The teacher reported the good work done by the various children. When she had finished, a low grade girl member of the class tugged at her sleeve and said, "Tell him that I cleaned the garbage can." She had cleaned the garbage can and had done it very well. She beamed over the praise given to her after she had called attention to her accomplishment. She had been useful and her joy was unbounded. Before she had learned to clean garbage cans and sinks there had been nothing for her to offer the world. Now that she could do this, the world, the part of it found in an institution at least, could use her services and she had something to give her world.

In general, occupational work which increases the patient's capability, increases his self-respect, inspires a healthy pride in accomplishment, and raises the standard of his endeavor. Col. Salmon quotes Dr. Miller in his article on "shell-shock," as saying, "shell-shock produces a condition which is essentially childish and infantile in its nature. Rest in bed and simple encouragement are not enough to educate a child. Progressive daily achievement is the only way whereby manhood and self-respect can be gained."

The occupational work of the feebleminded should be determined by the kind of work we expect them to do in the community, or in the institution where they live. There is no possibility of the feebleminded going into the professions, and very little chance of their going into the skilled trades. The ranks of the "odd jobbers," and unskilled workers must be filled by the mental defectives of society. The occupational work must fit them then, for this, their life-work.

One of the disturbing features met when working with mental cases, in general, and with feebleminded cases, in particular, is that the patient, upon encountering some slight difficulty, is ready to cease work. It is not uncommon to hear some one say, "This plane is no good. It will not work," and then to investigate and find that the only difficulty with the plane is that it requires an extra push to have it accomplish its purpose. The old saying that only the poor worker complains of his tools, is applicable in the case of mental patients for, as a matter of fact, it is to be doubted whether anyone could complain more of poor tools than the feebleminded, or mental patients. Investigation invariably proves that some slight difficulty has arisen which we would never hear of from normal people. If the story of "Why the Feebleminded Lose Their Jobs," could be written, the text would be the history of "insurmountable" difficulties for them. One left a good job in a phonograph factory because the needles "hurt his fingers." When asked if the needles hurt the fingers of the other boys who worked there, he said they did not. The fact that the needles hurt *his* fingers proved too great an obstacle for him.

In dealing with these cases it is essential that the patient be trained to meet these slight difficulties in order that he may grow in power to meet greater difficulties when they arise. Thus, occupational work must be selected which involves progressive daily achievement in the mastery of minor difficulties and in the performance of increasingly difficult tasks.

Types of Work Found Useful

There are many kinds of occupational work, all of them perhaps good, when used in the right place and with the right cases. Those which have been found to be useful, especially when used with groups of cases, are wood work, metal work, loom weaving (foot), sewing, basketry, raffia work, and brush making.

A worker who handled the wood working end of the shop in a psychiatric hospital overseas said to me, "You know, I think I have the best type of workers in the shop, in my department." We thought it over and her statement appeared to be true. The patients in the wood work did seem to be less fearful of hard work, and more ready on the whole to do a day's work. However, whether or not the conclusion the worker drew in connection with her work be true, the fact remains that wood work seems to be a very important part of occupational work for nervous, insane, or feebleminded patients. There is very little "bluff" in woodwork. Either an article stands true or it does not, either a board is straight or it is not, either an article is useful because it is made right, or it is useless because it is made wrong. Wood work, using as it does the big muscles, accomplishes much for the physical and mental upbuilding of patients whose bodies are healthy and strong and full of energy, and whose minds are incapable of handling those bodies or of directing those energies.

Much of what has been said of wood work, may likewise be said of metal work. Metal working, while using the big muscles, also uses many of the finer coördinations as well. Metal work is noisy. This fact may make it a disadvantage to other members of the group, but there appears to be an actual therapeutic value in the noise to many of the patients working with the metal themselves. One patient said, while hammering heavily and noisily on a piece of copper, "I enjoy hammering this copper because all the while I am doing it, I am thinking that I am hammering Major ————'s head." Work of that kind gave vent for her temper as well as for her energies, without the disastrous results which sometimes come from a show of both in other directions.

The foot looms are especially helpful for patients who need work which requires muscular coördination. Foot power scroll saws and sewing machines are helpful for this purpose also.

The work involving the smaller muscles and employing the finer coördinations, such as the basketry, raffia, brush making, book binding, and so on through all kinds of occupational work, are useful and, in fact, invaluable for patients ready for that work. The occupational workers must be so trained that they will know when patients are ready for the various kinds of work.

Training of Workers Haphazard

If one is to judge by the many failures and the few successes found among the occupational therapeutists in psychiatric cases, it would seem that training for this work has been done in a haphazard manner. In fact investigation seems to show that many of those who are training workers, have themselves, never had the slightest experience in training or treating mental cases through occupational therapy. In that case, very naturally, instructors emphasize the work they know best—to wit, the making of baskets, bags, toys, and what not. Occupational work thus used becomes at best merely an anesthetic to keep patients quiet a part of the day, but in results on the patient, it does not compare with the occupational work which has for its aims usefulness, and "progressive daily achievement."

Apparently only expert workers realize that the making of tables, toys, art objects, and in fact all occupations used by the occupational therapeutists, are merely the means to the great end of mental construction, in the case of those mentally affected from birth, and of mental reconstruction for those who were once normal and now need to be restored.

An artist who undertakes occupational therapy, will say, "You cannot tell me that there is not training in the production of this or that beautiful picture or object." There may be, and there may not be. It quite depends on the patient. The artist must be capable of subordinating her desire for the production of a beautiful object to the thing, however crude it may be, which will most help in the treatment of the patient. Her psychological or psychiatric training must overbalance her artistic training, so that she will see the patient's needs before she sees art productions.

VENEREAL DISEASES AND THE HOSPITAL

Conducted by ALEC N. THOMSON, M.D.
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TREATMENT OF PATIENT IN VENEREAL DISEASE CLINIC

By H. E. KLEINSCHMIDT, M.D.

A few years ago the task of controlling the spread of venereal disease seemed a hopeless one. Today the problem gives promise of being solved through the application of a comprehensive, practicable public health program. Because the war has served to focus attention on the problem, the whole country has been stimulated to enter the peace-time fight of combating venereal disease. The well rounded program adopted and put into practice by the army, navy, and Public Health Service, consisting of law enforcement, provision of recreation and entertainment, education, medical prophylaxis, and treatment, has proved its worth and is being generally, almost universally, accepted.

The relative values of these several factors are indeterminable, but the medically trained man requires no arguments to convince himself of the importance of providing facilities for scientific diagnosis and adequate treatment for all known and suspected carriers of venereal infection. The venereal disease clinic is established primarily as a public health measure in an attempt to gain control of carriers, thereby curbing the spread of disease; and not merely to relieve the suffering and distress of individual patients, commendable as that objective may be.

To insure the success of the diagnostic and therapeutic attack, certain requisites must be provided. Thus financial backing, guaranteeing the maintenance of the clinic through and beyond its experimental stage, is necessary, and fortunately such backing is now made available through the Public Health Service, state boards of health, and private organizations. The need of modern, but not necessarily elaborate equipment, is generally appreciated. Unless facilities such as the dark stage microscope, serological laboratory, diagnostic and treatment instruments of precision, are available, a clinic can hardly measure up to the modern standard. The business side of operating the clinic is usually given due emphasis and social service follow-up work has established its claim for recognition.

The provision of facilities not absolutely necessary for good scientific treatment but desirable for the comfort and general well-being of the patients is often neglected. For instance, it is rare to find a clinic where arrangements for segregating men and women in the waiting rooms have been made. Such a plan is highly desirable and, at least in the south, there should also be separate waiting rooms for whites and negroes. Where space is not to be had, clinic hours can be so arranged as to make one reception room serve without the necessity of entertaining patients of both sexes and all races at the same time.

In the treatment room a feature highly appreciated by patients is privacy. In private practice the physician is usually punctilious in insuring absolute privacy in the consultation room, but in the clinic the attendants are frequently careless in this regard. In a busy clinic where it is necessary to handle large numbers of patients with dispatch and where a sufficient number of rooms is not to be had, a liberal use of screens or curtains may suffice. The advertising specialist has long ago realized the value of catering to his patrons by promising privacy in all his relations toward them.

The average patron of the public clinic may or may not appreciate godliness, but it is certain that he does value cleanliness highly. He is entitled to surgical as well as the grosser kinds of cleanliness. The consistently scientific doctor carries his "aseptic conscience" with him wherever he goes, but occasionally one finds attendants in public clinics who have succeeded in smothering this conscience into unconsciousness. The writer once observed in a clinic of reputable standing a physician examining a number of venereal patients. After stripping back the prepuce of one patient for examination, he went directly to the next and without so much as washing his hands, palpated the forehead, lips, and neck. True, this doctor took the precaution of wearing rubber gloves for his own protection and it happened that patient number one was free from any lesion, but what about the violation of the aesthetic feelings of patient number two? Cleanliness in medical and surgical practice implies adequate equipment, but even with poor facilities, the ordinary technics can be carried out according to the rules of surgical cleanliness.

Perhaps the one factor on which more than on any other hinges success or failure of the clinic, is its man power. Advances in urology and syphilology have been so rapid in the last decade that only the physician who has kept stride with progress is competent to grace the staff of the clinic. But aside from the scientific qualifications of members of the staff, there is another consideration, the importance of which is too frequently overlooked, namely, the personal or social attitude of the doctor toward the patient. Many a physician becomes so engrossed in the treatment of the patient's *disease* that he is likely to overlook the treatment of the patient *himself*. Every patient is a "case," and as such should be critically, impersonally, and objectively studied with the same interest as is employed by the biologist in examining a newly-discovered beetle. Every patient is also a tangled bundle of opinions, prejudices, sensibilities, likes, and dislikes, which bundle no psychologist has yet succeeded in unraveling. He resents being treated as a mere specimen. He has come specifically to seek physical relief, but desires also human sympathy and understanding. He craves

the good will and favorable opinion of the doctor and offers his friendship in return, for in the doctor he has found one who has a real understanding of his physical distress or difficulty. He is entitled to all the courtesy and consideration which one man owes his fellow man.

Scores of discharged soldiers and sailors have complained of the treatment received at the hands of medical officers. These men may be laboring under a delusion but nevertheless their impressions will be carried back into their communities and will not soon be forgotten. For example, the "c.c. pill" has become a standing joke with many soldiers, representing in their minds the army's panacea for all ills to which a doughboy may be heir. From the medical viewpoint the administration of a preliminary cathartic, pending further developments, is of course, good treatment, but if the patient is left with the impression that the treatment was unscientific and a mere method of getting rid of him, who can blame him for making damaging charges? Taking into consideration the demands of discipline, the pressure of time under which many medical officers were working, the annoyance occasioned by the malingerer, and other circumstances unknown to the patient, these charges probably are not justifiable. What is considered as harshness by the patient, may have been only misinterpretation of military usage or discipline on the part of the officer. It is regrettable, however, that such misunderstandings have been established.

Instances of harsh personal treatment are sometimes observed in civilian clinics. This seems to be more noticeable among physicians who have had postgraduate training in German or Austrian schools, and is but a reflection of the autocratic, impersonal methods generally prevailing in continental clinics which are attended largely by ignorant and helpless peasants.

In venereal disease clinics medical attendants sometimes make the mistake of allowing a careless or even lewd element to creep into the dealings with the patient. Crude jokes, be they ever so artistically dressed up, are reprehensible and should never be tolerated in any dispensary. Because many of the female patients may be hardened prostitutes, is no reason why the doctor should jeopardize his dignity or risk insulting a respectable woman. The fact that many of the male patients are unscrupulous "rounders" is no excuse for allowing salacious stories or undignified language in the clinic.

Common etiquette, therefore, is reason enough for maintaining a dignified, respectful relation between patient, doctor, nurse, and orderly. But there are other valid reasons as well. First, there is to be taken into account the psychological effect on the patient. Numerous investigators have called attention to the close relations existing between mental influences and physiological processes. The psychical attitude of the patient has a direct bearing on purely physical reactions. Is it too far fetched to maintain that thoughtful, courteous personal treatment of the patient will be of material benefit to the therapeutic treatment administered?

Again, the importance of holding the patient should be emphasized. If the maintenance of the venereal clinic has for its purpose that of limiting the spread of venereal disease by rendering active carriers non-infectious, it is highly important that these carriers be held for treatment until cured, or at least until they are in a non-infectious state. It is a great mistake unwittingly or purposely to drive off a patient because of a lack of thoughtfulness on the part of clinic attendants. Even the dry goods merchant, the green grocer, the shoe-string peddler, realizes that unless he secures the friendly confidence of his customer, he will not long hold his trade. The physician should realize that he owes it to the clinic as an obligation to the public welfare to do everything in his power to hold the patient until cured.

Building up and sustaining the good reputation of a clinic is a responsibility resting especially on the members of the staff. It is certainly not unethical to advertise the clinic through the patients. How better could this be accomplished than by fostering the friendly good-will of the patrons! A grateful patient is a walking, talking advertisement for the public clinic, more efficient even than the familiar sandwich man. In certain civilian clinics maintained during the war for the treatment of venereal disease, it was observed that the majority of the patients were there because of the personal solicitation of some individual on whom a favorable impression had been made.

To fulfill its high mission, the public clinic should be more than a treatment station. Those who have come to seek relief are for the most part persons who, perhaps, have suffered deep remorse because of a misstep and are keenly responsive to any method which will assist in combating venereal diseases as a social evil. The male patient, after his unfortunate experience, will be more than willing so to instruct his sons, if he has them, that they shall not fall into the same trap. The young woman who has suffered a bitter personal experience because of previous ignorance of venereal disease can easily be made a propagandist of social hygiene. In the clinic, then, is a select group which should be educated to the end that information concerning the spread and prevention of venereal disease may be widely disseminated. Unless the clinic is kept on a high moral and social plane, this important objective will not be achieved.

A final reason for maintaining a correct social atmosphere in the venereal disease clinic is that the dignity of the profession should be most scrupulously upheld here as everywhere else. The reputation of the medical profession must not suffer because of carelessness or thoughtlessness on the part of clinic attendants. The severe criticisms and satires of such writers as Shaw, Hubbard, and others who have a wide following, aimed at members of the medical profession, are the result not so much of the scientific shortcomings of the doctor as they are of his social relations with the patient and the public. Perhaps most of the *'paths* and *'isms* would never have taken root had trained medical men paid more attention to the ordinary human relationships with those who had so little understanding of scientific medicine, and failed, therefore, to comprehend what seemed to them the foibles, inconsistencies, and weaknesses of doctors. The medical staff of the public venereal disease clinic can do much to demonstrate that medicine is, as is so frequently affirmed but seldom accepted, *a noble profession.* —*Social Hygiene.*

STATE BOARD QUESTIONS HOSPITALS ON VENEREAL CASES

The State Board of Charities and Corrections of Maine, under date of January 12, 1920, sent a circular letter to the hospitals, inviting their attention to the regulation of the State Board of Health. As this circular presents the subject of discrimination in regard to venereal disease cases in a general hospital rather clearly, it is felt that the readers of THE MODERN HOSPITAL will be interested, and it is hoped will want to express opinions pro and con. It follows:

STATE BOARD OF CHARITIES AND CORRECTIONS
Ex-officio
STATE BOARD OF MOTHERS' AID AND CHILDREN'S GUARDIANS
Circular No. 50. Augusta, January 12, 1920.

VENEREAL DISEASES

Extract from Regulations of the State Department of Health.

"Sec. 3. No discrimination shall be made against the reception and treatment of venereal disease cases in any general hospital, supported in part or in whole by municipal, county or state aid."

In the case of several hospitals receiving state appropriations, it is found that the hospital executives are pursuing a policy prescribed by their boards of directors, trustees or managers which is apparently directly at variance with the above quoted regulation. The admitting authorities of other hospitals say that the hospital conforms to this regulation. Certain members of the board of directors, trustees or managers, however, understand the hospital does not admit such cases.

Members of the governing boards of hospitals receiving this letter are requested to make a personal investigation of this matter, so far as it affects their particular hospital. This having been done, this department desires to be informed, officially, by the president or chairman of the board, as to the board's interpretation of this Health Department regulation as applied to his particular hospital. Will persons suffering from venereal diseases be admitted? If so, upon what terms or conditions?

State Board of Charities and Corrections,
(Signed) JAMES F. BAGLEY,
Secretary.

THE ROUTINE WASSERMANN

In Public Health Reports for December 12, 1919, the question of routine Wassermann is discussed from the standpoint of collecting accurate statistics in regard to the presence of syphilis. Accurate statistics are important in the advancement of venereal disease control. It is stated that the making of routine Wassermann reactions upon patients admitted to general hospitals is a practical way of obtaining authentic information, and that hospitals are justified, because of the importance of gathering data, in making Wassermann tests a routine procedure unless there be some specific contra-indication. The report quotes the following suggestion in regard to venereal control measures in England from an article in the *Lancet* (London), by Dr. E. T. Burke, Ch.B., who advocates what he terms a "venereal offensive":

"To estimate the strength of the enemy is a necessary preliminary to an assault. The more accurate the estimate, the brighter are the prospects of success. One valuable measure would be the performance of a Wassermann on every patient admitted to hospital.

"At the present day, on account of the prevalence of syphilis, this is an essential routine. It should be as invariable a rule that a Wassermann test should be done as that the urine should be examined. Not the least valuable effect of this would be that the results would furnish us with a more accurate index as to the prevalence of the disease. Were it continued for a period of years, it would indicate whether or not any progress was being made toward eradicating syphilis from the community. The first effect produced where this routine has been adopted has been to cause a feeling of astonishment at the large percentage of positive results. An examination of figures from (a few) American hospitals shows that on an average 19 per cent of patients admitted, not apparently suffering from syphilis, give a positive result. We can not hope that our experience in England would be in any way different. We would at once discover an immense hospital population suffering from undiagnosed, untreated, and unsuspected syphilis. It is they who recruit the ranks of locomotor ataxia, aneurysm, and general paralysis of the insane; they form the 60,000 annual victims.

"It is more important to do a Wassermann on a patient admitted for a fractured femur than on one suffering from lightning pains and whose knee jerks are gone. As a diagnostic aid or as an indication for treatment it is, in the latter case, practically a waste of time. If in the former case the result is positive, antisyphilitic treatment would have a twofold effect. It would hasten the repair of the fracture, and would, in addition, greatly limit the liability of the patient to be readmitted some years later suffering from the quaternary stage of syphilis. A great use of the Wassermann is to be found in its application to cases where syphilis is unthought of.

"The laboratories for the performance of the test are in practically every hospital. New ones are springing up all over the country Competent workers are being trained. Here, then, we have ready everything essential to making a practical attack upon communal syphilis. When the routine Wassermann is done upon every hospital patient a real and great step will have been taken toward dealing with what is undoubtedly the largest and most vital problem in public health work today."

In response to a recent letter sent out by the Medical Department of the American Social Hygiene Association to a number of physicians, among other questions—"Should a routine Wassermann be done on all admissions to hospital?"—opinion is unanimous that it should be done. There are exceptions, of course, to any such generalized statement, such as emergency cases and particularly cases where peculiar contra-indication exists. It must be taken into consideration that the doing of a routine Wassermann will help to prevent accidental infections within the hospital. Moreover, in order that we do not find syphilis where it does not exist, the fallibility of the Wassermann must be recognized.

BASE HOSPITALS TO REMAIN INTACT

In accordance with the wishes of the military authorities and as part of the peace program of the American Red Cross, base hospitals organized by the Red Cross for the army, which saw war service, will be held intact against future emergencies. War may never again visit this county, it is true, but there are the great disasters of peace—floods, earthquakes, epidemics—which might require immediate facilities, such as could be supplied only by a carefully organized and equipped system of base hospitals, which the Red Cross has as a legacy from its war experience.

These fifty base hospitals are located at important points through the country, and their personnel is recruited from the staffs of the hospitals in their vicinity. As a result of their war service, the doctors and nurses are incomparably well fitted to undertake such emergency tasks, and virtually, in all cases are being kept enrolled for duty when needed.

The army is cooperating with the Red Cross by providing each base hospital with a unit of equipment in accordance with military standards, which is stored in a government storehouse as near as possible to the city in which the base hospital is situated. Red Cross chapters, also, are assisting in the reorganization of the base hospitals for peace time, and will cooperate when base hospitals may be called for emergency service.

Progress in Equipment and Operation

Conducted by FRANK E. CHAPMAN

Superintendent, Mount Sinai Hospital, Cleveland, Ohio

Foreword

The establishment of this new department in the pages of THE MODERN HOSPITAL is primarily for the purpose of furnishing a vehicle for the interchange of ideas between administrators of hospitals.

There are a great many new and a great many old procedures in effect in various institutions which would be of inestimable value to administrators in other parts of the country in solving their problems.

The editor of the department can only correlate this information. It is a physical impossibility for him to furnish a sufficient amount of new material, and I want to take this opportunity, at the beginning, of soliciting from the hospital field as a whole, all of the suggestions and ideas available, with the sole thought in mind of making the department of value to the hospital field in general.

From manufacturers and vendors of hospital commodities I want to welcome criticisms, suggestions, and comments, assuring them it is the desire of the department to place before the hospitals improved methods of construction and operation.

The success of the department lies very largely in the hands of those who will and can assist in the furnishing of material for its use. EDITOR.

Acknowledging Mistakes

By ASA S. BACON, Superintendent, Presbyterian Hospital, Chicago.

Elbert Hubbard once told the following story:

There is a man who has a farm near mine, on the outskirts of the village of East Aurora. On this farm is a flock of Southdown sheep, quite the finest bunch you ever saw. One day the man and his foreman decided that the sheep should be "dipped." The next day the foreman ordered one of his helpers to prepare the mixture. The sheep were dipped, twenty of them—and behold the effect! The wool came off in patches. The poor things were scalded, scorched and blistered. The helper had used carbolic acid diluted one-half, when it should have been used as one to one hundred. Of course, the foreman was to blame—he should have prepared the "dip" himself. But after the damage was done, the average man would have sat down and written a letter to the owner saying, "I hereby tender my resignation," etc., etc. This man didn't. He wrote his employer stating the plain facts, and asked that his pay be cut one-half, as punishment. The owner accepted the man's offer to work at the reduced wage, and never once after referred to the mishap. The foreman went to work nursing those injured sheep. He looked after them night and day as a mother does her children. At the end of the year the owner sent the foreman a check for the difference in wages. The man had made good!

There is a wonderful lesson for hospital superintendents, as well as employees, in this story. We all make mistakes, but it takes a mighty good man to acknowledge them, as this foreman did. The average employee can make good in spite of blunders, providing he will go to his employer and make a clean breast of them, and the wise employer will listen patiently to the employee, and give him advice, transferring him to other work if necessary, instead of firing him, as many do. Your hospital is a humanitarian institution and your employees are as deserving of humanitarian treatment as your patients.

Pure Water Supplies for Hospitals

That the subject of pure water supply for communities, industries, and institutions, is being given more careful consideration is evidenced by the organization of the Associated Manufacturers of Water Purifying Equipment.

Born almost out of necessity while the recent war was in progress, the Associated Manufacturers of Water Purifying Equipment has now become a permanent organization. Although formed primarily for the purpose of getting the priority committtee to enable members of the Association to obtain sufficient supplies for the operation of their plants, there were reasons for the organization which did not disappear with the close of the war. Consequently, at a meeting held in New York in March, 1919, it was voted to continue the Association.

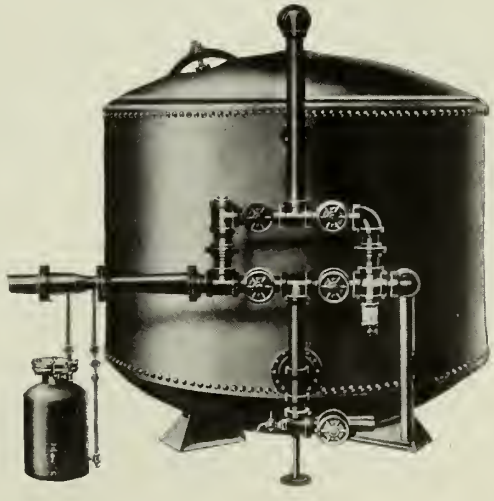


Fig. 1. A rapid pressure filter consisting of a closed cylindrical shell of iron or steel which contains a layer of silica sand, superimposed on gravel graded so that the voids in the gravel are smaller than the grains comprising the filtering sand.

Besides establishing friendly relations and cooperation among the members, its work will consist largely of stand-

ardization—such as standardization of equipment sizes, of guarantees to customers, and of terms of sale.

It will be the endeavor of the Association to have architects and engineers specify filters in such a manner that all manufacturing companies figuring on the specifications will estimate on filters of the same diameter. This can readily be accomplished by a specification by architects and engineers of what the rate of filtration should be. Benefits from the standardization and cooperation effected by the Association will naturally be realized by ultimate purchasers and users.

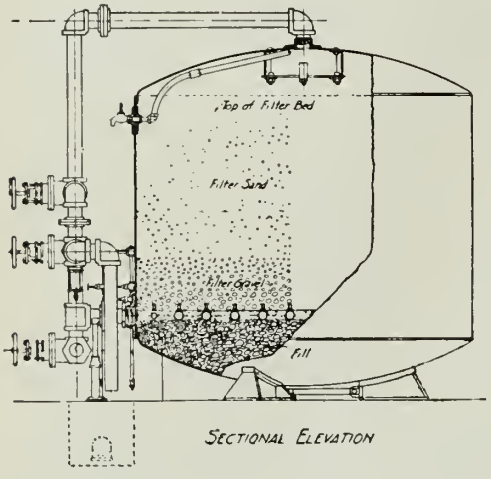


Fig. 2. Sectional elevation in a rapid pressure filter.

This is a subject that is especially interesting to hospitals. Hospital administrators should take every means to know that the supply of water for their institution is pure, and to install such equipment as will insure a proper water supply.

Eligibility for membership in the Association is restricted to individuals, firms, and corporations regularly engaged in the manufacture and sale of apparatus or equipment for the purification, rectification, or sterilization of water.

A Desirable Type of Filter

There are various types of filters. Attention at this time is called to one of them (Fig. 2). This filter embodies the best principles of the rapid sand or mechanical filter type, which years of experimentation and actual use have proven the most successful in rendering water safe and suitable for industrial and home purposes. The process of filtration involves the passage of water through a bed of sand and gravel of special character and proper thickness, which has the effect of removing materials in suspension. With the aid of a coagulating agent, it removes impurities in water at a high rate of speed. It furnishes water perfectly adapted to the use of such industries as packing houses, starch, sugar, and glass works, distilleries and bottling works, paper and strawboard mills, and other industries where it is essential that water be clean. It also furnishes water adapted to the use of hotels, hospitals, office buildings, and swimming pools.

The filter is built in three styles and twelve sizes, its rate of filtration varying from ninety gallons an hour in the smallest, to nine thousand an hour, in the largest. Due to its simplified construction and principle of design, operation is an easy matter.

Rules About the Radiator

DR. DAVID A. STEWART, Medical Superintendent, Manitoba Sanatorium, Ninette, Man.

In all hospitals, and most of all, I think, in sanatoriums, there is a very great waste of heat. About heat which is used and rightly used, even if the bills are high, there can be no regret, but about heat wasted, benefiting no one, or even harming instead of helping, there certainly should be regret.

I have found in patients and members of staff (nurses included) ideas about steam heating so very inadequate that I have made a practice of giving early each winter some definite instruction—a sort of lecture on the anatomy and physiology of the system, on radiator illnesses, their causes, symptoms, and cure. Such a talk, here put on paper, may be of some use to others.

The "Tea Cosy" radiator cover referred to, of which illustrations are given, was devised to suit the peculiar conditions of a Northern winter and has been in use in the Manitoba Sanatorium for two or three years. We have found it a most valuable piece of equipment. Made up with an outer covering of duck of suitable shade, it looks quite as well as the radiator it covers, and can even be brought into the room color scheme. It is made of a shape and size to fit a particular radiator, large enough to drop to the floor, back and front, and take in the valve as well as the radiator itself. The padding we have used is ordinary cotton-batting and newspapers, with an inner lining of cheap material; the covers are made up very cheaply.

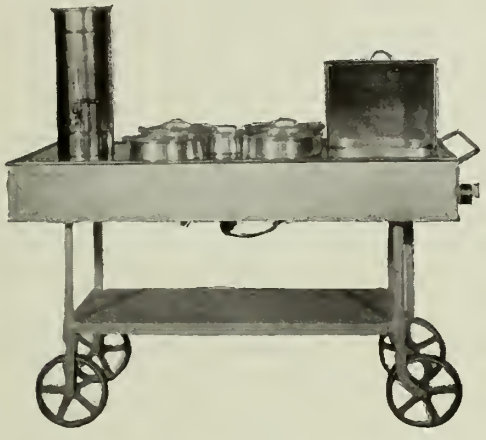
While most of our patients spend the day and usually the night on balconies, using their rooms chiefly as dressing rooms, very often, especially in the infirmary, a patient has to have this routine modified, and have the essentials of outdoor conditions while remaining indoors. To try to give these conditions in a zero atmosphere, with door and window opening, will create radiator difficulties. If heat is left on, there is very great waste and the room is scarcely cool enough; if left off, the radiator will freeze up and cause endless trouble; if the radiator is not frozen, but simply chilled and discouraged, it will sulk and refuse to work properly all day, or for many a day. We settle the problem by opening door and window wide, covering the radiator with our non-conducting, "tea cosy" radiator cover, and leaving the heat on. The room is cool but no heat is wasted. When morning comes, and the room, which has been practically a cold, open-air balcony for the night, should become a ward again, window

The adjustable "Tea-Cosy" radiator cover. At the left the cover is shown when not in use. The right-hand picture shows cover in use while window and door are open. The cover prevents chilling of the radiator.

and door are closed; the radiator cover is removed and the radiator, already sizzling hot, soon warms the room sufficiently to permit of any nursing procedure. The advantage of starting with a hot radiator instead of a cold one when a room is to be warmed is very considerable. The economy in steam production and radiator repairs, by intelligent use of the radiator cover, is remarkable.

Electrically Heated Portable Steam Tables

Mercy Hospital, Chicago, has just installed five electrically heated portable steam tables that no doubt will be of great value in the handling of food, and should be watched with interest by hospital superintendents. Following is a photograph.



Portable steam table, electrically heated.

All food containers, as well as the coffee urn lining, are of burnished aluminum. The dimensions are:

Two meat panels, 11x9x2 inches.
Two vegetable inserts, 11 quarts each.
One potato insert, 11 quarts.
One gravy insert, 3 quarts.
One soup insert, 11 quarts.
One coffee urn, 3 gallons.

The top of table is constructed of burnished nickel silver. In size it is 4 feet 9 inches long, 2 feet 2 inches wide, and 36 inches high

The meat panels are fitted with revolving covers. All other inserts have clamp-on lids of aluminum. The table is supplied with 6-inch maple carving board.

The framework is constructed of 1¼-inch tubing, with shelf under pan for transporting breads, salads, etc.

The tables are fitted with 10-inch self-steering wheels equipped with demountable rubber tires. The entire truck is enameled white, with nickel fittings.

All inserts have round corners, easily cleaned—the last word in sanitary construction.

The inserts, heating elements, steam pan are all removable.

Fuel Saving by Furnace Attention

By ASA S. BACON, Superintendent, Presbyterian Hospital, Chicago.

While the price of coal is working a hardship on the institutions throughout the country, a great deal of literature is being written on the subject, most of which affects the large plants and is not applicable to the small institutions. However, suggestions that will be found valuable to either a small or large institution are based on the fact that when a stack smokes there is waste, and attention to the firing should be given at once. A damper installed in the stack is a great help and a saver of fuel, if properly operated. All cracks in the front of the furnace should be sealed up, and warped doors should be replaced. The brick work should be gone over carefully and all cracks filled with fire clay and asbestos. A good way to find leaks is to hold a tallow candle near the wall; you will be surprised to see how the suction will draw the flame. After this is done, cover the brick work with leak-proof black elastic cement. A mason's trowel should be used and a thickness of about 3/16 inch should be put on. One hospital is saving about forty tons of coal a month since its furnace walls were made tight, as above described, and it no longer has smoke.

NEW HOSPITAL LABORATORY IN POLAND

Warsaw, Poland, has a new medical laboratory, recently installed by the American Red Cross. It is the finest in Poland, and one of the most complete and up-to-date in the world. The equipment, which is new throughout, was transported across the Atlantic and over half of Europe. It is complete from the simplest phial to the largest and most expensive instruments, including a complete microscope.

The unloading and unpacking of the large shipments of laboratory material was not accomplished without difficulty. At first refugees were employed, but they were found in many cases to be so physically weak from prolonged underfeeding that the Red Cross doctors themselves finally rolled up their sleeves and helped to unload the heavy freight.

No gift of the American people to suffering Poland is more valuable than this great hospital laboratory, which is the eighth laboratory opened by the Red Cross. In all these laboratories, American chemical stains are used instead of the German chemicals with which it used to be thought that no other product could compete. American peptone is likewise used exclusively in fermentation processes, replacing the German, formerly the world standard. The services of these laboratories are greatly adding to the efficiency of the fight being made in Poland against the spread of typhus and cholera, both of which are still dangerously prevalent. The new laboratory, under the direction of Major Bruce Mohler, of Fremont, Ohio, is in charge of Dr. Placida Gardner of Los Angeles, Cal., with Dr. Gladys Vaughan of Wolfville, Nova Scotia, as chief bacteriologist.

SURGICAL RESEARCH DEPARTMENT URGED FOR EVERY HOSPITAL

The establishment of a surgical research department in every hospital has been advocated by Jasper Halpenny in the Canadian Medical Association Journal. The chief value in a department of this type would be that it would tend to develop the student attitude of mind—a progressive groping for new light—and would prevent the practice of surgery from becoming routine and stationary. "Standardizing" in surgery means "fossilizing." The research department would lead surgeons not only to discover increasing numbers of new facts, but also to be more assiduous seekers for scientific truth.

Patient: This fish isn't as good as we had last Friday.

Porter: It ought to be. It's the same fish.—*The Stethoscope.*

Queries and Answers

REFUSING TO TREAT VENEREAL DISEASES IN THE GENERAL HOSPITAL

To the Editor of The Modern Hospital:

Are general hospitals that receive their support from the community in which they are located, justified in refusing to admit and treat venereal diseases? If not, why not?—Hospital Superintendent.

In answering this question, we must first endeavor to determine what is meant by the correspondent when he uses the word "general" as applied to hospitals. "General" hospitals, as the layman uses the term, would be expected to care for all types of sickness not requiring special facilities—diagnostic, therapeutic, or protective. They would be expected to accept both medical and surgical cases, as well as both communicable and non-communicable cases, and, therefore, they certainly should not evade the moral or medical duty of accepting a sick person whatever the diagnosis. There can be but one justification for this evasion, and that is the element of danger to other inmates of the hospital.

In discussing the question of communicability, it must be realized that syphilis and gonorrhea are not different in degree from pneumonia and typhoid. The hospital, therefore, is not justified in excluding the gonococcus and accepting the pneumococcus. Nor can a hospital maintain its exclusive policy on the ground that it is entitled to keep out the spirocheta pallida and accept the bacillus typhosis. Any general hospital, moreover, which raises subscriptions on the sympathy of the well for the sick and of the well-to-do for the poor, and makes the appeal for public support on a general basis of treating the sick, has no right to refuse to accept patients of one variety of illness any more than it has a right to refuse to accept patients of one class, color, or creed. General hospitals which receive appropriations from public funds either from the municipality or from the state, are of necessity bound to accept all cases applying for admission at the front door, which is the door through which the venereal patient should enter.

In the query of the correspondent, we take the word "support," to apply to voluntary contributions and not public funds. Hospitals wholly maintained by the state or the municipality have not the slightest possible excuse for refusing to receive and treat gonorrhea and syphilis and may be left out of the discussion. Hospitals that are on a *per diem* subsidy or have part of their budget met by the state or municipality form a group which, it would seem, should be forced to accept any case requiring hospital care. The receiving of patients with venereal diseases should, in other words, be made one of the conditions precedent to their receiving public appropriation.

Disregarding the question of proper policy or sound principle, there is no doubt that a large percentage of both medical and surgical cases, whatever the diagnosis—are in the hospital primarily or secondarily because of the gonococcus or the spirocheta pallida. This includes, of course, such conditions as cardiorenal disease, angina pectoris, abdominal inflammatory conditions, chronic arthritic cases, and an endless variety of nervous affections. Cases "are now in all hospitals which have not the imagination and honesty to refer the origin of the lesion to the past event when 'moral turpitude' was the contributory cause," says one writer on the subject. Were routine Wassermanns done on all admissions to the hospital, it would undoubtedly be discovered that, in spite of any policy of exclusion, the institution was caring for a reasonably high percentage of more or less active syphilis.

That beds are necessary for the best treatment of certain cases of syphilis practically all writers on the subject agree. Visceral syphilis certainly requires hospitalization in the majority of recognized cases. Patients in the primary and secondary stage, who at first were unable or unwilling to care for themselves, must have bed facilities. It is the opinion of many authorities that the average individual with syphilis is not as dangerous in the average hospital as the patient with typhoid. Consensus of opinion seems to be that a syphilis ward is desirable where the volume of business is great.

Relatively little hospital facility is required for gonorrhea with the present methods of treatment. Many writers recommend that the early treatment of gonorrhea should start with a period of absolute rest in bed. This is not entirely feasible and, at the present time, is not generally practiced. As a result of the lack of bed treatment, there are undoubtedly a few cases of epididymitis; and, considering all the causative factors of epididymitis, there exist a reasonable number that do require bed facilities. The other complications, such as arthritis, prostatic abscess, or stricture of marked degree, manage to get inside the hospital on one excuse or another. Some beds are therefore required. Unless the hospital is running a very large service no special ward need be maintained. Ordinary surgical care as required in pus cases is sufficient.

From the evidence at hand and the general impression gathered in reading a large amount of material, it would seem that the consensus of opinion is that the hospital is *not* justified in refusing to admit and treat venereal disease. If, however, the hospital chooses to take a positive stand and, in its appeal for support, specifically states that no money will be accepted from anyone who objects to exclusion from the hospital because of venereal disease, then and then only is it justified in refusing to accept a case. Certain hospitals have in their charters a specification that they will not accept cases of venereal diseases; certain hospitals have been endowed on the

definite understanding that venereal disease will not be treated within; others have had restrictions placed upon them by their financial backers to a degree that prohibits their having even out-patient departments for the treatment of gonorrhea and syphilis. Hospital with limitations of this character are not playing the game square with the supporting public when appealing for funds unless they make the statement in their appeal that, because of their peculiar organization, they cannot accept a case of gonorrhea or syphilis.

It is regretted by some that there are no laws compelling hospitals to deliver service in line with their appeal for support. In places where local agreements and rules are made for the pooling of subscriptions for welfare purposes, thus concentrating all money raising drives in one campaign, the committee in charge of such a drive ought to require that the hospitals and dispensaries which offer treatment facilities should make provision for gonorrhea and syphilis as a condition precedent to their coming in on the general drive.

Answering in this generalized way the question asked by our correspondent, we have indicated lines of thought rather than rendered a cut and dried decision. In discussing this matter one rather suggestive question has been asked, "Suppose a public spirited individual of the community makes a subscription of, let us say $2,000, to the support of the general hospital, assuming from the appeal for funds that the hospital was what "general" would indicate, and then he tries to have a primary case of syphilis requiring hospitalization admitted. Is he justified, upon the refusal of the hospital to admit the case, in suing for the return of his money on the ground that it was solicited under false pretenses?" This question warrants consideration. It may be tried some day if an enthusiast for the control of venereal diseases attempts to force the issue!

OVERWORKED NURSES

To the Editor of THE MODERN HOSPITAL:

Will you kindly give us your opinion concerning the number of patients a pupil nurse should be able to care for. We have a training school of ninety nurses. On a floor of forty patients, ten in each of two wards and the rest in private rooms we have three, rarely four nurses to do all the work. The pupils also do the special cases as graduates are not called in. "It costs too much to hire help," say the trustees, so the nurses have to do all the sweeping and cleaning.

HEAD NURSE WITHOUT HELP.

Five nurses to forty patients should be the minimum; and when the nurses are compelled to do the sweeping and cleaning, this number is not sufficient. These pupil nurses should also be supervised by a graduate nurse who has had proper training in floor work.

Pupil nurses should not be called upon to do special work as graduates, except possibly during the last three months' of their training.

Nurses should not be called upon to do the maids' work in the hospital. A hospital that compels the nurses to do maids' work as well as sweeping and cleaning, will eventually lose out, for when parents find out that their daughters are being exploited in this way, they certainly will not let their girls take training in a school of this kind. This is not practiced in the Class "A" hospitals throughout the country.

To love truth for truth's sake is the principal part of human perfection in this world, and the seed-plot of all other virtues.—John Locke.

OPERATING ROOM IN PRINCESS' BOUDOIR

In the sixty-bed hospital which the American Red Cross has equipped and put in operation in the former palace of Prince Mirko in Pedgoritza Montenegro, the operating room is the former princess' boudoir. The anesthetist's seat is a carved mahogany piano stool from the Prince's music room, and the instrument case is the Prince's *armoire* (chest of drawers). Two tables for dressing were made of packing boxes, scrubbed but unpainted, and the instrument stand is a rosewood wall table. Water heater and waste box are made of petrol tins, and when operations are performed at night an ordinary kerosene lamp furnishes the only light.

A few months ago there were neither doctors nor hospitals in Podgoritza. When the Red Cross came there, it found that the only livable house was the former palace of Prince Mirko, son of the ex-king Nicholas. It had been closed for several years, still partly furnished. By applying to the Serbian government, the Red Cross got permission to use it for a hospital. Iron cots without springs, left behind by the Austrian army, were the only beds obtainable. Tables were made of ordinary packing boxes which had once contained supplies shipped from Red Cross warehouses.

Although the house had been a prince's palace, there was no plumbing. Five-gallon gasoline cans were converted into tanks which supplied the makeshift bathroom. Ten women were employed filling these tanks until a primitive sort of piping could be put in. The water is now pumped by hand from the river.

The conservatory, looking out on the rose garden, was made into a tuberculosis ward. Springless iron beds and packing boxes furnished it. In warm weather, all who are not bed patients sit out in the sunshine of the garden in steamer chairs contrived from packing box wood and sacking. "We had the palace," says Miss Lena Johnson, head nurse. "The rest we had to invent. But it works. That's all we care." The hospital will operate throughout the winter.

A NOVEL AMBULANCE IN TIRANA

Down to the Red Cross hospital in Tirana, ten miles over rough mountain paths, came four men bearing what looked from a distance like some sort of a sedan chair, or an oriental palanquin of curious shape. As they came nearer the strange conveyance resolved itself into a huge brass kettle, swung between long poles, in which on a bed of leaves and hay sat a sick woman. The men sat down the kettle with extraordinary care and tenderness. She was very sick—would the American doctor see her? But alas, there was little the American doctor could do. She was too far gone in tuberculosis. He could only advise preventive measures for those who surrounded her, and prescribe a palliative for her cough.

It has been slow work gaining the confidence of these mountaineers who have suffered so much from disease and privation during the war. Medical attention, except in the cities, is almost unknown. There are now only four native physicians in the whole country. But the Red Cross has established hospitals and dispensaries, has fed the people and given them medical treatment, and as a result the conditions are greatly improved, although there is much still to do.

Art little? Do thy little well, and for thy comfort know great men can do their greatest work no better than just so.—Goethe.

Book Reviews and Current Hospital Literature

[Books received are acknowledged in this column, and such acknowledgment must be regarded as a sufficient return for the courtesy of the sender. Selections will be made for review in the interests of our readers and as space permits.]

* * * *

HENRY MILLS HURD. By Thomas Stephen Cullen. A biographical sketch of Henry M. Hurd, A.M., M.D., "probably the best known hospital superintendent in the United States, an expert on hospital organization and management, professor of psychiatry, author, and editor" by one of his professional associates written at the request of the President of the Board of Trustees of the Johns Hopkins Hospital and one of the trustees, Mr. George Keen McGaw.*

Dr. Hurd was born May 3, 1843, at Union City, Brach County, Michigan. His parents, Theodore C. and Ellen E. (Hammond), came originally from Connecticut to Michigan in 1834. The father, a pioneer physician, died at the age of 39, leaving a wife and three little boys. His mother remarried in 1848, and in 1854 went to Galesburg, Ill. In 1858 he entered Knox College, where he spent two years. He taught for a year, and in 1861 entered the University of Michigan. He attended lectures at the Rush Medical College, Chicago, and at the University of Michigan, graduating from the department of medicine and surgery of this university in 1866. The following year he spent in New York in study and hospital work, then moved to Chicago, where he engaged in dispensary and general practice for two years. In May, 1870, he was appointed medical officer in the State Hospital for the Insane at Kalamazoo, Mich. In 1878 he was made assistant superintendent, but resigned to take charge of the Eastern Michigan Hospital for the Insane at Pontiac, where he remained until 1889.

In 1861 he visited Europe for travel and for certain investigations, which were later published in connection with the biennial report of the Eastern Michigan Asylum, 1882. June, 1889, he was made director of the Johns Hopkins Hospital, in which capacity he served until 1911, when he resigned and became secretary of the Board of Trustees of the Johns Hopkins Hospital.

Dr. Hurd has published various articles, reports and papers relating to the care of the insane, hospital management, and psychiatry. Among important articles are; "A Plea for Systematic, Therapeutical, Clinical and Statistical Study," 1881, a criticism of the published reports of institutions; "The Hereditary Influence of Alcoholic Indulgence upon the Production of Insanity," 1883; and 'Future Provisions for the Insane in Michigan," 1883, a criticism of false economy applied to the care of the insane.

Through the publication of his annual reports of the Johns Hopkins Hospital, Dr. Hurd scheduled events of importance, suggested changes, proffered recommendations, and chronicled activities of the hospital. The first report of 1899 discusses the organization, equipment, and personnel of the hospital. Particular attention is given to the opening of the Nurses' Training School, October, 1889. The annual reports are divided into three groups—1890-1897, 1898-1905, 1905-1911. During the first period, the opening of the Johns Hopkins Medical School in 1893, the addition of various wards and gifts, the growth and influence of the Nurses' Training School, and the opening of the Colored Orphan Asylum in 1895 are prominent items. During the second period, the Baltimore fire, in 1903, left the hospital finances in a precarious state, but a gift of $500,000 from Mr. John D. Rockefeller enabled the hospital to "continue its works of charity, medical education, medical research, and the training of nurses."

Within the hospital Dr. Hurd established various publications and clubs among the members of the hospital and dispensary staff. A monthly known as the Johns Hopkins Bulletin was established "to contain announcements, reports of societies, and minor medical contributions." A hospital medical society was established, with bimonthly meetings at which papers were read, patients exhibited, pathological specimens presented, and the results of original investigations in the clinical, pathological, and hygienic laboratories were reported. A Journal Club was organized to review current literature, and in November, 1890, the Historical Club, to study medicine in its historical aspects.

Papers and addresses published by Dr. Hurd, while he was superintendent, are listed. With Dr. John S. Billings, Dr. Hurd assumed the expense of publishing certain papers devoted to the hospital care of the sick, the training of nurses, dispensary and first aid to the injured, read at the section of the International Congress of Charities, Corrections and Philanthropy held at Chicago, June 12 to 17, 1893. In 1895 Dr. Billings and Dr. Hurd published a volume of 43 pages, "Suggestions to Hospital and Asylum Visitors." Perhaps his most important work was his organization and participation in the history of "The Institutional Care of the Insane in the United States and Canada," which is "one of the few works in the English language in which the history of a separate branch of medicine has been exhaustively treated."

Dr. Hurd was one of the editors of the *American Journal of Insanity* since 1897 and of THE MODERN HOSPITAL since 1913. He was a member of the Association of American Physicians, of the American Anthropological Association, and of the American Public Health Association; president in 1896 of the American Academy of Medicine; secretary, 1892-1897, president, 1898-1899, and editor of three volumes of the proceedings of the American Medico-Psychological Association; and president of the American Hospital Association in 1912.

*The Johns Hopkins Press, Baltimore, Md., 1920.

Mr. George Keen McGaw, his friend and admirer, has left funds for the erection of the Henry M. Hurd library as a mark of appreciation and esteem. He was particularly anxious that Dr. Hurd should see and enjoy the library bearing his name. Dr. Hurd is at present engaged in writing a history of the Johns Hopkins Hospital.

The last chapter, "Some Random Recollections," was written by Dr. Hurd at the request of his friends, and is a delightful description of the experiences of a youthful pioneer, and a brief sketch of his many activities.

A bibliography of the publications and works of Dr. Hurd is appended, with reference to the date of appearance, and the periodical or conference in which each appeared.

INDUSTRIAL MEDICINE AND SURGERY. By Harry E. Mock, M.D., F.A.C.S., Assistant Professor of Industrial Medicine and Surgery at Rush Medical College. Octavo, 846 pp., 210 illustrations.*

Dr. Mock's book is in a way a pioneer in the field of industrial medicine. It is divided into six parts: (1) Industrial Health Service; (2) Prevention; (3) Industrial Medicine; (4) Industrial Surgery; (5) Compensation Insurance, Medico-Legal Phases; and (6) Reconstruction. The basis upon which the material is distributed is not always clear and in reading the book one feels that a series of detached articles with a common subject have been brought together. The book is, however, the result of years of observation and study and as such demands the most careful consideration.

A great variety of the problems and difficulties of the industrial practitioner are touched upon. Under the heading of industrial health service are treated the personnel, the equipment and the activities of the medical department. The construction of the office and dispensary receive detailed treatment. Dr. Mock points out that the employment of part-time physicians has some very distinctive advantages. Under such a system several men well grounded in general work can relieve each other, yet may each have the opportunity to use his special knowledge, as the occasion arises. In this way all are free part of the day to develop their special lines of work, and incidentally, they are becoming more valuable to the concern because of this development. The salaries paid these part-time physicians are good. Although the concern could not employ them for full time without an outlay that would make it prohibitive, their combined salaries do not exceed what the concern would pay for one mediocre physician giving his full time to the work.

A special chapter on the nurse in industry is contributed by Miss Mae Middleton, most of which is devoted to illustrative cases showing the importance of this activity. Dr. Mock feels that social welfare work among the families of the employed, is justifiable on economic rather than humanitarian grounds. On the same principle the medical services and the mechanical safety services should be under one head to assure proper coordination of their activities.

The problems of physical examination of applicants for employment, Dr. Mock feels, may be handled largely by tactful explanations to remove suspicions. The percentage of absolute rejections is small. The most important functions of the examinations are the fitting of men to jobs, the prevention of accidents due to partial incapacity and the opening of a medical record for the employee.

A chapter on women in industry reviews largely the experiences of the war in dealing with their problems of routine physical examination, the provision of facilities for resting and the general supervision of their health.

The tuberculous employee is considered from the hygienic, statistical, sanitary and the rehabilitation points of view.

The highest grade of surgical skill and knowledge is necessary to the industrial surgeon. The detailed explanation of different methods and technique brought out by Dr. Mock, amplified by his own experience, will make the book of great value. The immediate and free use of iodine is particularly emphasized as one of the most important points in industrial surgery. Orthopedics, especially the reeducation of crippled and disabled men, receives particular attention.

Workmen's compensation, health insurance and employees' mutual benefit associations are all discussed. In the problems of reconstruction there is a special chapter devoted to human conservation and the reclamation of the disabled.

A very complete bibliography covering the field of industrial medicine and surgery since 1916 is appended.

THE NARCOTIC DRUG PROBLEM. By Earnest S. Bishop, M.D., F.A.C.P.†

Whatever differences of opinion may exist as to the personality of the drug addict and the causes leading up to his "drug addiction disease," as the author calls it, the readers of Dr. Bishop's book can not deny that the problem as presented and the solution as expressed by him are in accordance with modern medical opinion of the disease. The conception, as the author states, properly begins with the individual drug patient. The "group" handling of these cases which he believes is a reprehensible practice and accountable to a large degree for the failure of the medical profession to institute proper methods of treatment, is graphically described.

In the tenth chapter there is apparent a strong appeal to the public and to the physician to consider primarily the individual case and an admonition to direct legislation and remedial measures consistent with the peculiarities of the patient. In the author's opinion the proper solution of the proposition must center on the case *per se*.

There can be no question that, as the author states, the drug addict is a sick man and that his actual need for the drug or, "craving," as it is properly termed, is in direct relation to a feeling of incapacity experienced by the patient. The theory of drug addiction disease as an antidotal toxic substance proposed by the author may not be entirely acceptable; however, the acceptance or rejection of this theory in no way detracts from the value of the book which must be considered a much needed contribution to the meager library on drug inebriety and drug theraphy. The author's description of the point of view of the drug addict is interesting, and to one familiar with drug cases is a true presentation of the subject. Unquestionably, the fear of the development of abstinence symptoms, and the patient's lack of faith in the many methods of treatment which he may have tried, account to a considerable extent for the lack of coöperation of the patient, frequently observed.

Dr. Bishop deplores the widespread opinion that chronic opium addiction is a morbid habit denoting mental, physical, and moral degeneration. He believes that the majority of the narcotic addicts are mentally and morally of the same average equipment as other people, a statement which may be questioned by those who have made psycho-

*W. B. Saunders Company, Philadelphia, 1919, $10.

†Macmillan Company, New York, 1920, $1.50.

metric examination of a number of cases of different social status.

The chapter on methods of treatment should be read by every physician. The fallacies of any specific treatment are emphasized, and the essential adjunct to any method of treatment, viz., education, is given considerable prominence in the concluding chapter.

Chapter VIII,—"Laws and Their Relation to Narcotic Drugs,"—is an appeal to the medical profession for wise interpretation with an understanding of the true conditions of the disease.

The author believes that the present law was wisely enacted and that, taken as a whole, if wisely administered, it should accomplish its purpose.

In the final chapter of the book there is a strong appeal for general education which should go hand in hand with any plan advanced for betterment. Attention is particularly called to public clinics under competent management. The concluding paragraphs of the book, which are quoted, express the author's ideas as to the proper steps necessary to bring the disease under control:

"In the past the problem of control of addiction has been what shall be done with or what shall be done to the narcotic addict to make him stop using drugs? It is now gradually coming to be realized that the true problem is, what can be done for the narcotic addict to relieve him of the physical necessity of using drugs, and what can be done to so educate the public as to the facts of addiction, so that this disease will claim as few victims as possible?

"In this change of attitude lies the hope for the future. Some narcotic addicts will have to be rather severely dealt with. They are the inherently irresponsible, vicious, or defective. They demand care and restraint irrespective of their addiction. The mass of addicts, however, need someting done for them. They are clinical problems of internal medicine, victims of a definite disease, characteristic in its symptomatology, reactions and phenomena, a disease which will before long come to be known as clinically and therapeutically controllable and arrestable."

A TEXTBOOK OF CHEMISTRY FOR NURSES. By Fredus N. Peters, A.M., Ph.D., Author of "Experimental Chemistry," "Laboratory Experiments," "Modern Chemistry," etc.; formerly professor of chemistry and director of laboratories, Kansas City College of Pharmacy; professor organic chemistry, Hahnemann Medical College; director of laboratories and professor of chemistry and metallurgy, Kansas City Dental College; head of science department, Kansas City Central High School.[1]

There is only one way to teach chemistry properly, whether to nurses or any other type of students, and that is by beginning systematically with inorganic chemistry and supplementing this by a thorough laboratory course. After the fundamentals of the science have been assimilated, the more intricate subject of organic chemistry may be tackled.

The author has attempted the difficult task of presenting, in one compact volume the essentials of both organic and inorganic chemistry in such a way that the student might get the maximum in the small space of time allotted to this subject in the nurses' curriculum.

The book is very practical and popularly written; many examples of the application of chemistry in everyday life are inserted in the text. On the whole, this little manual is well suited for the purpose for which it is intended. The teacher can easily supplement the course by a few experiments here and there to illustrate the salient points.

1. C. V. Mosby Co., St. Louis, 1919, $1.75.

NURSING IN DISEASES OF CHILDREN. By Carl G. Leo-Wolf, M.D., chief of the clinic for sick babies and children for the health department of the City of Buffalo, N. Y.; instructor in pediatrics, University of Buffalo, Medical Department; author of "The Child in Health and Illness."[2]

After a careful reading of Dr. Leo-Wolf's little volume on nursing in diseases of children, one feels that it might well become a very constant companion for the nurse. It would certainly be of distinct value to many physicians as well. The book is a simple, straightforward conversation between a man and his associate workers, who are also his friends; a man who, while he would demand the utmost obedience from his nurses, would be inclined always to give them full credit for the good results for which they have been responsible.

The next thing which strikes one is the very great care that the author has taken to explain the "little things" which are so seldom mentioned in the textbooks. These are the details which the nurse often fails to have at her fingers' ends but which she often hesitates to ask of the physician because he sometimes scoffs more or less at the things which she wishes to discuss as important. It is the big man who recognizes the value of the so-called nagging details and, also, that especially with women, both nurses and mothers, there is often a real ability to note detail of all kinds. Many training schools cannot give the nurse sufficient individual training to prepare her for all the exigencies of private nursing, and too often she blunders because no one has impressed the importance of simple things upon her. This Dr. Leo-Wolf does to a very noticeable degree, and his frequent admonition to the nurse "to put yourself in the patient's position" is certainly very pertinent. If all doctors and nurses did that more frequently, how different would be the history of the patient's experience.

The first two chapters of the book, the introduction and that headed "Physiology and General Considerations," give a good working basis, but with no superfluities. The third chapter, that on clothing, is very different from the matter before and after, and is the poorest one in the book. It is too short, too one-sided in opinion, and would not be practical generally, because it advocates unqualifiedly for the layette a number of things which many good pediatrists do not use. The chapter on infant feeding is a joy because it sets forth a positive plan, at the same time warning the nurse not to feed babies herself unless absolutely necessary, but still places in her hands a rational procedure in case she should be left, in an emergency, alone. The chapter on the examination of children is full of practical hints for both doctor and nurse and, again, there is much of practical value in the discussion of the nursing of sick children and infections.

Of course, the nurse is always the victim of the fact that no two doctors take care of their children in at all the same way, and one would naturally differ on occasion with Dr. Leo-Wolf; but there are very few textbooks where there is expressed as fair an opinion of the other man's point of view. Furthermore, the book is a relief because it does not have the mixture of physiology and anatomy, nursing and *materia medica* that one finds jumbled together in so many of the nursing textbooks.

2. C. V. Mosby Company, St. Louis, 1918.

A fine quotation is a diamond on the finger of a man of wit, and a pebble in the hand of a fool.—Abbe Roux.

FOREIGN CORRESPONDENCE

REGISTRATION OF NURSES IN GREAT BRITAIN

From our London Correspondent

State registration of nurses is now an accomplished fact in this country. Three Nurse Registration Bills, Bill No. 2 providing for the registration of nurses for the sick under a General Nursing Council for England and Wales, the Nurses' Registration (Scotland) Bill establishing a General Nursing Council for Scotland, and a Nurses' Registration (Ireland) Bill establishing a General Nursing Council for the registration of nurses in Ireland, have all received the Royal Assent and become Acts of Parliament. Registration of nurses, therefore, is law in Great Britain and Ireland.

The registration of nurses is a matter to which attention should have been paid long ago, for, because there was no means of placing an absolutely distinctive mark on nurses who were really thoroughly trained and qualified for their work, the uniform was naturally abused a good deal. Some persons masqueraded in nurses' clothes, who were nursemaids. These did no particular harm, perhaps, except that they brought the garb into ridicule. Others wore the nurses' uniform for less worthy purposes and cast perhaps a certain amount of disrepute on a calling which has been sanctified by Florence Nightingale and by many other good women. However, all that is past and done with, and in the course of a few years will be regarded almost as ancient history. It may be said that the Act is retrospective and will shelter under its wing a large number of nurses who cannot show the hall-mark of a first class training. This state of affairs will continue for some time, and doubtless the official register will be flooded during the first few years with half trained or inadequately trained nurses.

Business Aspect of Registration

It may be well to discuss briefly British nurse registration from the business aspect, that is, as it rests on the basis of the three Registration Bills, and in doing this, one cannot proceed more wisely than to refer to the articles of "Ierne" which have appeared in "*The Hospital*" from time to time. The writer of the said articles is an acute observer, thoroughly conversant with her subject, who surveys the question from a broad outlook. Although it must be allowed that there are cliques in the nursing profession, and, possibly, some nurses who seem to prefer the advancement of their own interests to the good of the profession and the health of the community, she does not appear to have any axe to grind. "Ierne" has pointed out that the Registration Act is not a concession to the nursing profession any more than the Medical Acts were to that of medicine. She, for it is to be presumed that "Ierne" is a woman, takes the stand that "the only nurses who can hope directly to derive substantial benefit from the measure are the 'birds of doubtful plumage,' those who cannot show the hall-mark of a first class training. It may happen that the letters 'R.N.' after their names will make them eligible for public appointments from which they have been hitherto debarred, but this remains to be seen." The Registration Act will not greatly help the fully trained nurse during the first ten years or so of its enforcement. Real merit and her certificate of training will constitute, as before the passage of the Act, her credentials. But after some years have gone by, and after the Act has been further amended, as it probably will be, the sheep will be separated from the goats and registration will signify what it should signify, an imprimatur of absolute competence. As the Bill stands now it merely provides for the enrolment of names on a list and leaves it to a General Nursing Council to define the standard of training and other essential matters.

Council of England Constitution

The constitution of the Council for England and Wales is as follows:

"(1) The Council shall consist of twenty-five members.

"(2) On its first constitution the Council shall be composed of the following persons: two persons who shall not be registered medical practitioners, or nurses, or persons concerned with the regular direction or provision of the services of nurses, appointed by the Privy Council; two persons appointed by the Board of Education; five persons appointed by the Minister of Health, after consultation with persons and bodies having special knowledge and experience of training schools for nurses, of the work of matrons of hospitals, of general and special nursing services, and of general and special medical practices; sixteen persons, who are, or have been at some time, nurses actually engaged in rendering services in direct connection with the nursing of the sick, appointed by the Minister of Health after consultation with the Central Committee for the State Registration of Nurses, The College of Nursing, the Royal British Nurses' Association, and such other associations or organized bodies of nurses or matrons as represent to the Minister that they desire to be consulted in the matter. The Minister in making appointments under this provision shall have regard to the desirability of including in the Council persons having experience in the various forms of nursing.

"(3) The first members of the Council shall hold office for such term not less than two years, and not exceeding three years from the commencement of this Act, as the Minister of Health may determine.

"(4) After the expiration of the term of office of the first members of the Council, the Council shall be composed of nine persons appointed respectively by the Privy Council, the Board of Education, and the Minister of Health as aforesaid, and of sixteen persons, being persons registered as nurses under the Act, elected in accord-

ance with the prescribed scheme and in the prescribed manner by the persons so registered at the date of election.

"(5) Any members of the Council other than the first members shall hold office for a term of five years.

"(6) If the place of a member of the Council becomes vacant before the expiration of the term of office, whether by death, resignation or otherwise, the vacancy shall be filled by appointment by the body or persons by whom the member was appointed, or if the vacating member was an elected member, by the Council. The Council in co-opting a member under the foregoing provision, shall, so far as practicable, select a person, being a person registered as a nurse under this Act, who is representative of the same interests as those represented by the vacating member. Any person appointed or elected to fill a casual vacancy shall hold office only so long as the member in whose stead he is appointed or elected would have held office.

"(7) Any member ceasing to be a member of the Council shall be eligible for re-appointment or re-election.

"(8) The powers of the Council may be exercised notwithstanding any vacancy in their number."

The Parliament of Great Britain is compelled, or virtually compelled, when establishing any State register, to safeguard the interests of those already in practice. Consequently, a clause in the Bill has been inserted whereby nurses in practice are admitted to the Register during a period of two years subject to the approval of their claims by the General Nursing Council. Rules made by the Council will not come into operation until they have been approved by the Minister of Health and laid before Parliament. The register is to consist of a general and supplementary part, the latter to include male nurses, mental nurses, and nurses of sick children.

Any person who proves to the satisfaction of the Council that he or she has been registered either generally as a nurse for the sick, or as a nurse of some special class in any part of His Majesty's Dominions outside of The United Kingdom, being a part of those dominions to which this section applies, shall be entitled, on making an application in the prescribed manner and paying the fee, to be registered in a corresponding manner under this Act. This applies to Scotland and Ireland. Nurses registered in Scotland or Ireland may claim admission to the English Nurses' register provided that they reach a certain stipulated standard; with a view to securing a uniform standard of qualification in all parts of the United Kingdom, the English nursing Council shall before making any rules under this Act with respect to the conditions of admission to the register, consult with any Nursing Councils which are established by Parliament for Scotland and Ireland respectively.

Success of Bill Rests With Council

As the *Lancet* (London), December 27, 1919, pertinently remarks: "It is quite evident that the question whether or not State Registration of nurses, as granted by the Bill, is to be a help to the nursing profession and to the public sick, will depend entirely upon the General Nursing Council, its wisdom and strength." The Council has to make definite rules for admission to the register, length of training, manner and quality of training, kind of examinations and other tests to gauge the fitness of the candidate. Indeed the entire future success of the Bill, and to a great extent, of the health of the country rests with the Council. Dr. Addison, the Minister of Health, believes that this Bill will placate the warring or jarring factions in the English nursing world, and it is to be hoped for the good of all concerned, that his faith will be justified.

The registration of dentists and nurses in England will come almost at the same time, as it is certain that a Dentists' Registration Act will become law very shortly. The trinity of medical men, dentist and nurse is essential to the successful carrying out of the Ministry of Health scheme for the regeneration, largely by preventive means, of health in Great Britain. To achieve this object it is as necessary that the nurse be highly skilled as that the doctor and dentist are thoroughly competent. In any event, whatever the outcome, the registration of nurses in Great Britain is obviously a step in the right direction. The registration of nurses and the registration of dentists are due to the Ministry of Health and are a part of the campaign being waged by its members in favor of the practice of preventive medicine on organized lines. The campaign may end in a State Medical Service, a State Nursing Service and a Dental Nursing Service, but if this is the result, and it proves for the good of the health of the community, the end will have justified the means. We shall see what we shall see.

FIRST AID

For nine months, she had religiously attended the ambulance class. And today there was something to try her skill on. A man had fallen down in the road and broken his leg. Joy of joys!

Scattering in all directions the crowd surrounding the sufferer, she flopped on her knees at his side. She snatched a walking stick from a man standing near and broke it into three pieces for a splint.

"She dragged a mackintosh from a woman's shoulder and cut it into strips for a bandage. When the poor chap on the pavement had been splinted and bandaged as well as she could do it, an ambulance was called and she took him to the hospital.

"This is beautifully done," said the doctor, as he unwound the bandages; "Who did it?"

Blushingly, she confessed to it.

"Splendidly done," said the doctor "But you have made one little mistake. You've bandaged the wrong leg."—*Pharmacal Advance.*

LABOR

Let me but do my work from day to day
In field or forest, at deck or loom,
In the roaring market place or tranquil room;
Let me find it in my heart to say,
When vagrant wishes beckon me astray:
"This is my work, my blessings, not my doom;
Of all who live I am the only one by whom
This work can best be done in the right way."

—Henry Van Dyke.

Good manners is the art of making those people easy with whom we converse.—Dean Swift.

Nothing that is excellent can be wrought suddenly.—Jeremy Taylor.

The tyranny of yesterday can be softened only by the lure of tomorrow or the grip of today.—Journal of Outdoor Life.

THE MODERN HOSPITAL

A Monthly Journal Devoted to the Building, Equipment, and Administration of Hospitals, Sanatoriums, and Allied Institutions, and to Their Medical, Surgical and Nursing Services

Vol. XIV *May, 1920* No. 5

THE CARSON C. PECK MEMORIAL HOSPITAL

By CHARLES F. NEERGAARD, Chairman of the Building Committee

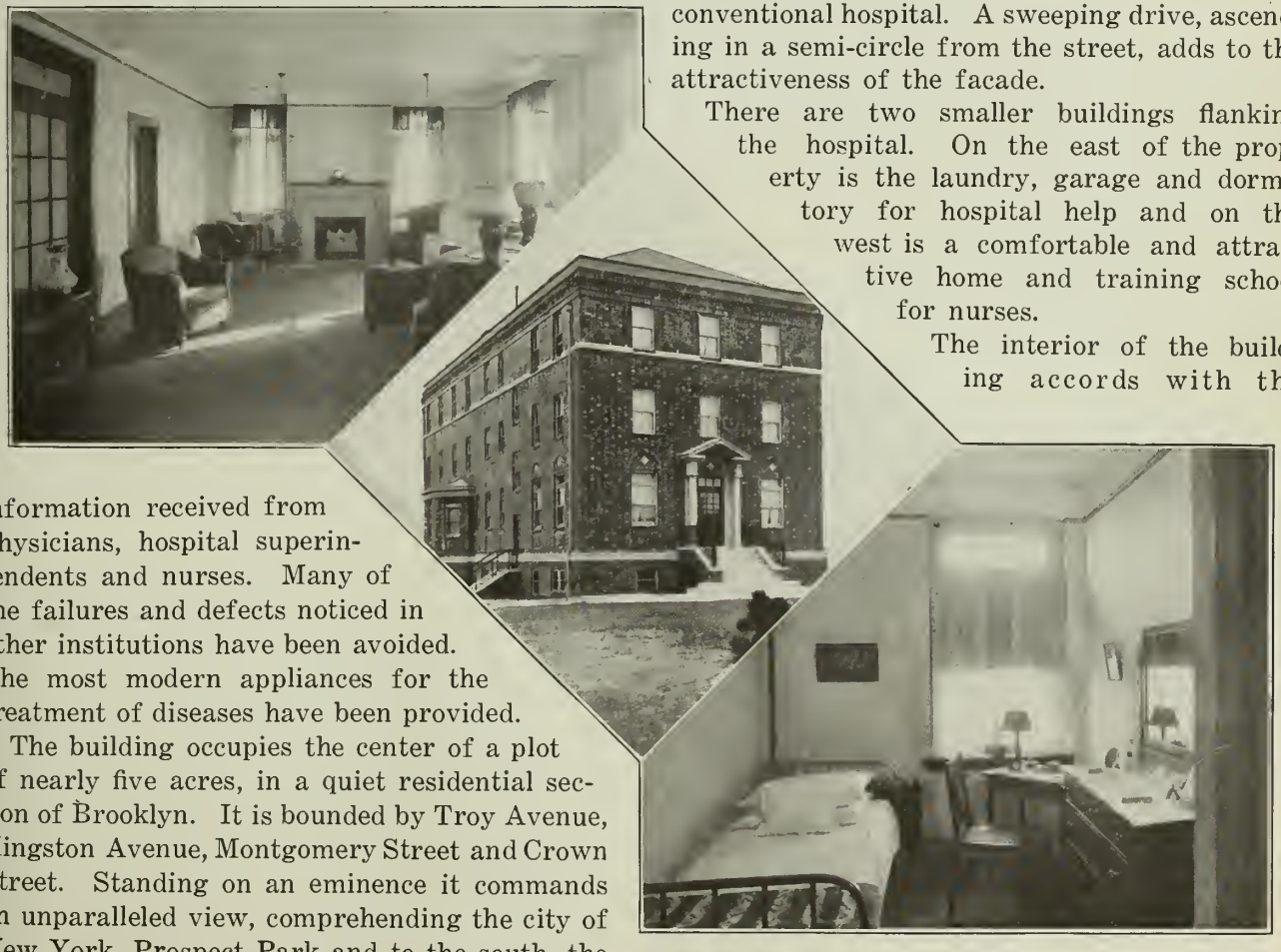
THE Carson C. Peck Memorial Hospital of Brooklyn is the result of an earnest effort to put into effect the most modern ideals of hospital construction, furnishings, equipment and administration. It is the result of a broad study of hospital conditions in the east and middle west and is a reduction to an operative system of the information received from physicians, hospital superintendents and nurses. Many of the failures and defects noticed in other institutions have been avoided. The most modern appliances for the treatment of diseases have been provided.

The building occupies the center of a plot of nearly five acres, in a quiet residential section of Brooklyn. It is bounded by Troy Avenue, Kingston Avenue, Montgomery Street and Crown Street. Standing on an eminence it commands an unparalleled view, comprehending the city of New York, Prospect Park and to the south, the open sea. The locations being the highest section of Brooklyn, assures the patients the utmost advantage in light and fresh air.

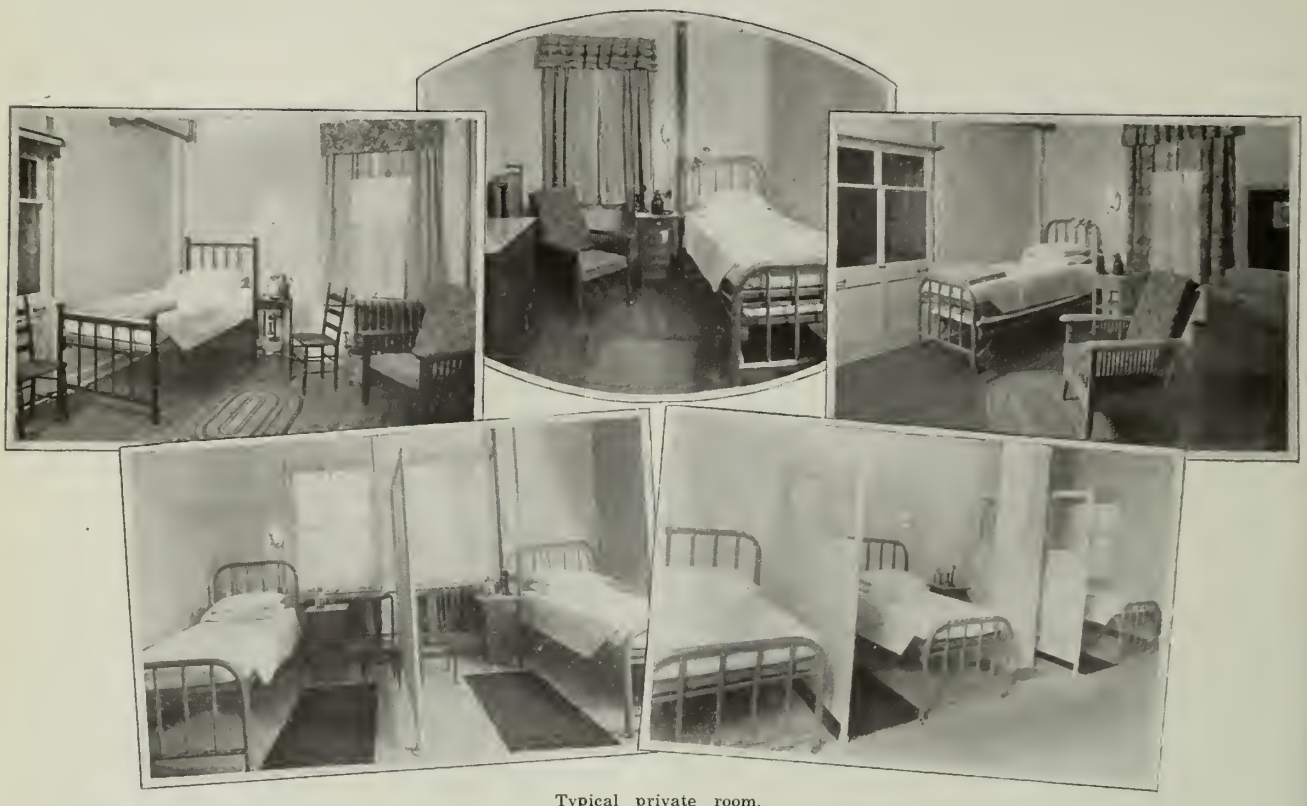
The building is handsome. The architects have carried out admirably one of the fundamental ideals of hospital construction, dignity, and beauty. The hospital is monumental in design, having a pillared front and an elevation of four stories and mansard; it has none of the aspect of the conventional hospital. A sweeping drive, ascending in a semi-circle from the street, adds to the attractiveness of the facade.

There are two smaller buildings flanking the hospital. On the east of the property is the laundry, garage and dormitory for hospital help and on the west is a comfortable and attractive home and training school for nurses.

The interior of the building accords with the



Upper left hand—Nurses' reception room.
Center—The Nurses' Home.
Lower right hand—Typical bedroom in Nurses' Home.



Typical private room.

Corner room showing standard lighting bracket, triple hung window giving access to solarium.
Two-bed semi-private room.

Corner room of two-room and bath suite showing triple hung window through which a bed may be moved to the solarium.
Typical three-bed semi-private room.

impression given by its external aspect. There has been an effort to keep distinct and separate the technical side of the institution from that with which the patient comes in contact during periods of rest and convalescence. The forbidding sterilizers, stretchers and dressing carriages are conveniently located, yet kept concealed from casual view. The atmosphere of every room, whether it be ward, private room, sitting room, office or general reception room, has been made as cheerful and home-like as possible. This has been done in pursuance of a well considered plan, to which it is proper to advert, in order that the structural features and equipment to be described, may be understood.

Brooklyn owes this institution to the benevolence of the family of the late Carson C. Peck, a man of great philanthropic enthusiasms, who spent his life in the building up and directing of vast business enterprises. Those who were intimately dear to him desired that his monument should be representative of his intelligent and broad human kindness.

The trustees appointed to carry out the design of the founders were inspired by this ideal and considered it their duty to determine first what kind of a hospital was most urgently needed in Brooklyn, and second, how such an institution could be most perfectly created.

A survey, made of social conditions in the city, showed that there was insufficient hospital provision for a most deserving class. We found that the patients receiving hospital treatment were classified as follows:

A—Charity ward patients who receive free treatment.

B—Part pay ward patients who pay a nominal sum for a bed in a ward.

C—Semi-private patients who can afford to pay a moderate fee for hospital service (though below hospital costs) who seek no charity, yet require privacy, cheerful surroundings, and good care.

D—Private room patients who can afford such rates of payment as yield a reasonable profit to the institution.

Accommodations for Middle Class

Class "C" is the largest in our great cities. It is the most neglected by hospitals. The rich and the poor can obtain ample accommodations and the most scientific treatment in any of our large hospitals. For the person in moderate circumstances to whom sickness and the need for hospital care come there are far too few beds available within his means. He is faced with the alternative of taking an expensive private room, or a bed in a general ward where there is no privacy and where he feels a loss of self respect in the acceptance of charity.

The board of trustees of the Carson C. Peck Memorial Hospital, planning their project to meet this state of facts, determined that the hospital should have a limited number of private rooms, but should devote the majority of its beds to the semi-private room patients, reserving a few beds for charity cases originating with the staff or the trustees.

The writer of this article was appointed chairman of the building committee. He was aided by an extensive experience in hospital work and in building construction. To this he added such information as was obtainable by personal visits to a large number of our modern hospitals in the east and middle west. The use of a note book enabled him to bring back a knowledge of the best developments that special ingenuity and long study had effected in the different cities within the scope of his survey. information was also sought from hospital superintendents and nurses concerning the best features of their institutions, and questions were asked to bring out the administrative difficulties resulting from defects of planning and construction, and from faults of equipment. Knowledge of mistakes in arrangement, that were disclosed in the performance of their various duties, were most helpful to us. We secured a large amount of data pertaining to every department of a hospital—not only sign posts of progress, but danger signals. This gave us a definite idea of what was desirable in every department of the hospital and enabled us to formulate two principles:

Eight-bed, semi-private ward. Distinctive features are cubicle partitions and curtain screens, the special beds mounted on large castors, the night light in the floor, and the solarium.

Waste of Space Avoided

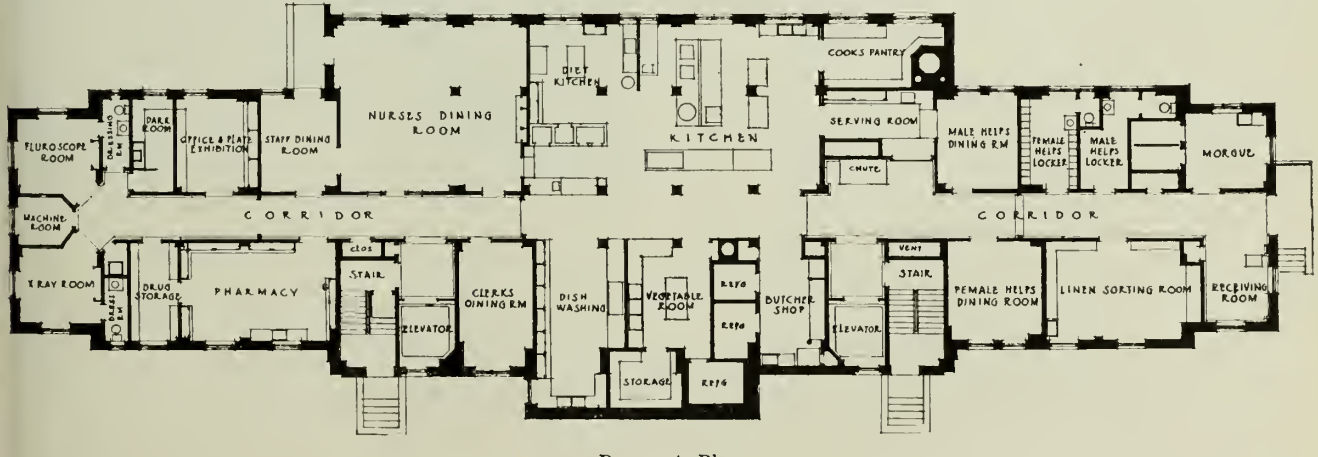
First, the average hospital contains a great deal of waste space and superfluous equipment, which increases the initial cost and is a constant expense for upkeep and maintenance. Therefore, with respect to space, we adopted as a motto—"Just large enough."

Second, all features of the plan must be subordinated to convenience and efficiency of operation.

With this ideal in mind, the necessity of its fulfilment required a close co-operation with the architects and contractors in order to get the most desirable plan, the best material and the most approved equipment and furnishings possible to obtain.

Messrs. Ludlow & Peabody were appointed as the architects and the Hegeman-Harris Company as the general contractors. The ability of the architects is best exemplified by the beautiful building which they have designed. The highest commendation is due our contractors who, in spite of the fact that the institution was erected during the most trying period of the war, were able, by careful and conscientious effort and skill, to complete the building without unreasonable delay and with a substantial saving on the estimated cost. The cordial cooperation of architects and builders, with the building committee, made a difficult and complicated task a pleasant one.

While the plans and specifications were being prepared, architects, builders and engineers met



Basement Plan.

in weekly conference with the building committee and by a process of elimination, arrived at the best of the various methods and materials, discarding everything that would require early replacement.

A Solarium.

The building which resulted from all this preliminary labor has been visited and commended by many eminent physicians, surgeons and hospital administrators.

Impression of Cheerfulness Created

The entrance rotunda creates an impression of cheerfullness and welcome. The ornamental pillars and the soft warm colorings are of Pompeiian design. It is lighted from the rear by great windows looking toward the south. Opening from this lobby are the staff and executive offices and a waiting room for patients' friends. The westerly corridor leads to the children's ward with its quiet and observation rooms, diet kitchen, examination room and large bright solarium. The easterly corridor leads to administration offices and the house staff's quarters.

The second floor is devoted to semi-private wards, the left wing for female patients and the right for male patients. There are for each group, eight bed semi-private wards, three bed semi-private rooms, quiet rooms, medical laboratory, examination room and the various utility rooms.

The third floor is for private patients. There are four suites of two rooms and bath, making possible the residence of a relative with the patient.

The fourth floor is for maternity cases, with private rooms, semi-private two and three bed rooms, and an eight bed ward, two delivery rooms and nursery.

On the fifth floor are the two operating rooms, with their necessary adjuncts.

The basement, which in the rear is above the ground level, is flooded with sunlight. The kitchen, dining rooms for staff, nurses, clerks, and the cafeteria for the help are in the center of the building. At the west end are the receiving rooms, linen room, kitchen stores and the employees' locker rooms. At the east end are the x-ray and electro therapeutic departments and drug room.

In the sub-basement is the mechanical plant, with water filters, refrigerating equipment and a large general store room from which all supplies are issued on requisition, thus giving a centralized control.

Special Features of Hospital

The special features of the hospital may be considered under several headings:

Arrangement—All rooms are so arranged as to accommodate themselves to the proper and rapid work of the physicians and nurses and the convenience of patients. The rooms are just large enough for comfort. In every patient's room is a lavatory with hot and cold water—a high goose neck faucet makes easy the filling of basins, pitchers or hot water bottles.

All patients' rooms, whether private suites, semi-private rooms, or private wards, are outside rooms, receiving the full benefit of the southern sun, ample light and ventilation. They are adjacent to porches, upon which convalescents

Children's Ward. The cubucles are a distinctive feature.

may be rolled through specially designed triple hung windows which open from the floor, when required. An important feature of the plan is the provision for all patients enjoying sunlight in the out of doors. Ninety per cent of the patients can be moved directly from their rooms or wards to a porch or solarium without having to

Operating room. The doctor's wash-up sink, the window to the sterilizing room, and the foot controlled special instrument sterilizer are shown.

go through the corridors. Solariums are at each end of every floor. Privacy in the wards and semi-private rooms has been accomplished by the use of cubical partitions located between the beds. These are made of pipe frame with wood panels below and glass above, which isolate the patients without giving them a feeling of being shut in. The partitions are seven feet high, are raised six inches above the floor, and are out six inches from the walls. In addition to the partitions, curtains, strung on wires, provide complete privacy during examinations and dressings. The elimination of the old-fashioned clumsy ward screen is a distinct forward step.

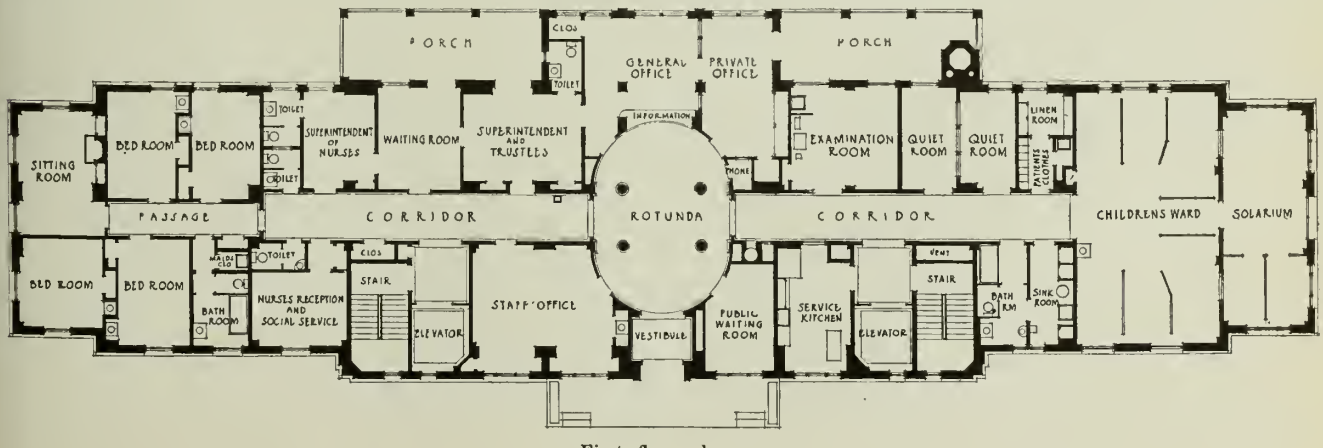
The corridors of the hospital, running east and west, are spacious enough for their use, but not excessively large. They are all slightly arched, and the joints are curved, to facilitate cleanliness. All patients' rooms are on the south side of the building—the operating, examining, and utility rooms on the north.

Hospital Homelike

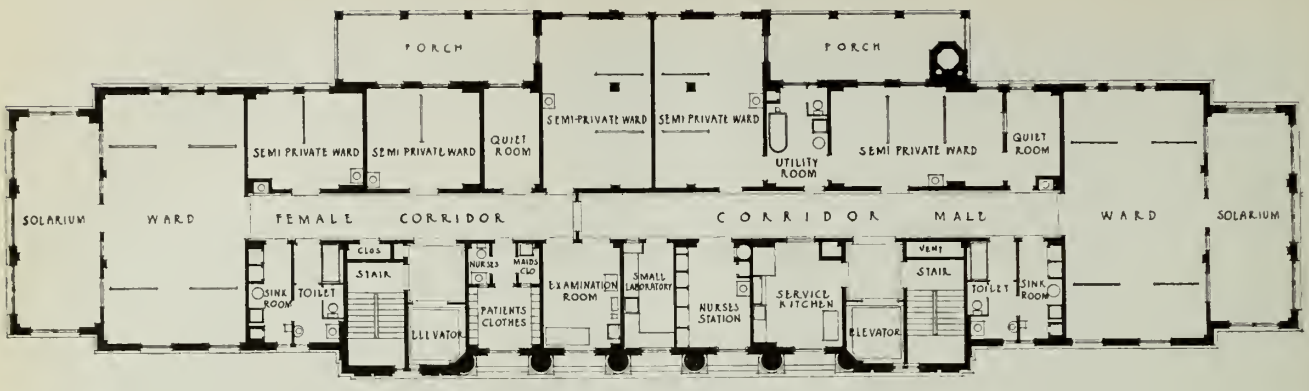
Furniture—The furnishing of the rooms has been carried out with the idea of giving convenience and comfort to the patient, physician, and nurse. The conventional hospital furnishings have been avoided. The rooms are varied

Operating room. The glass screen concealing radiators and horizontal lights, the emergency gas light, and the recessed cabinet for supplies are special features.

in their equipment and colorings and have a most homelike appearance. The usual hospital monotone of glaring white or apple green is missing. The same chintz used for curtains is under glass on bureau and bedside table. Rugs and furniture coverings harmonize with the general color scheme. The selection of draperies and color schemes, the homelike touch of soft toned stencils on the walls was directed by Mrs. Gerrit Smith, the decorator, whose good taste and appreciation of the problem of making a hospital seem like home were responsible for the successful results. Messrs. Frederick Loeser & Company, who sup-



First floor plan.



Plan of the second floor, devoted to wards.

plied most of the furnishings for the building through Mr. H. N. Mahrt of their contract department, gave excellent service.

Food Service—The most modern dietary arrangements are employed. Ice boxes are in the kitchen, all chilled with brine refrigeration. Glass panels are set in the doors to permit inspection of the contents without loss of refrigeration. All food service is from the main kitchen. The food is sent direct to the patients' rooms and wards from the kitchen in specially heated food trucks, each truck carrying sixteen trays. The trays are set up and the food served in the main kitchen under the eye of the dietitian—there is no rehandling or reheating of food. The service is so planned and systematized that no time is lost and the food is served hot. All dishes are returned to a central dishwashing room after the meal has been served.

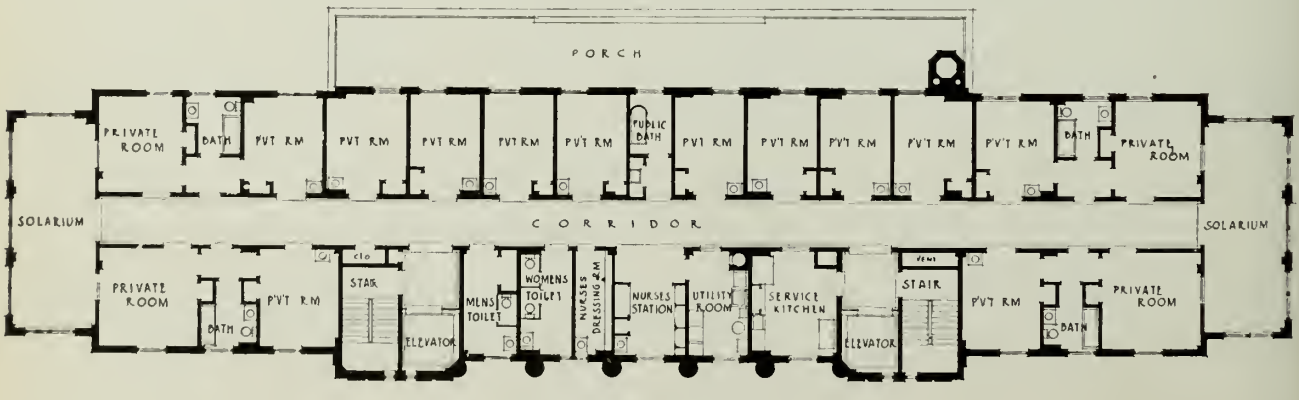
The dining rooms for the staff and nurses are attractive and comfortable and adjoin the main kitchen. The meals are served on glass covered tables, a dainty patterned chintz beneath the glass. In this way laundry bills are reduced. The help have cafeteria service.

Doors—All doors are noiseless. The old hospital terror of the clicking latch has been done away with. The room doors are provided with an arm hook so that a nurse carrying a tray can open the door without difficulty. Self-closing floor check hinges prevent slamming of doors. The doors are flush panel oak and wherever necessary for the passage of beds are four feet wide.

Call System—The call system consists of a push button beside the bed of the patient, a signal light above the door of the room or ward, and flash lights at the nurse's desk, in the corridor, in diet kitchen, and utility room. The patient is always able to see that the call has registered.

Technical Equipment—The bed used through the hospital was specially designed for the institution by the Mesereau Bed Company. It has an adjustable double catch mattress frame, positive in action, which allows the patient to rest with back or knees in any desired position. It is easily controlled by one nurse. The bed is carried on 6-inch felt-tired castors, so that it may be easily moved to the porticoes, or to any part of the hospital. This provision largely eliminates the use of stretchers.

Operating Rooms—There are two operating rooms with the sterilization room between. In the connecting corridor are the surgeons' wash-up sinks. The floors and walls of the operating rooms are finished in soft gray tile and are without projecting ledges. The radiation and lighting systems are screened with glass. Fresh air passes through cheesecloth filters. The glass ceiling has been utilized for ventilation purposes



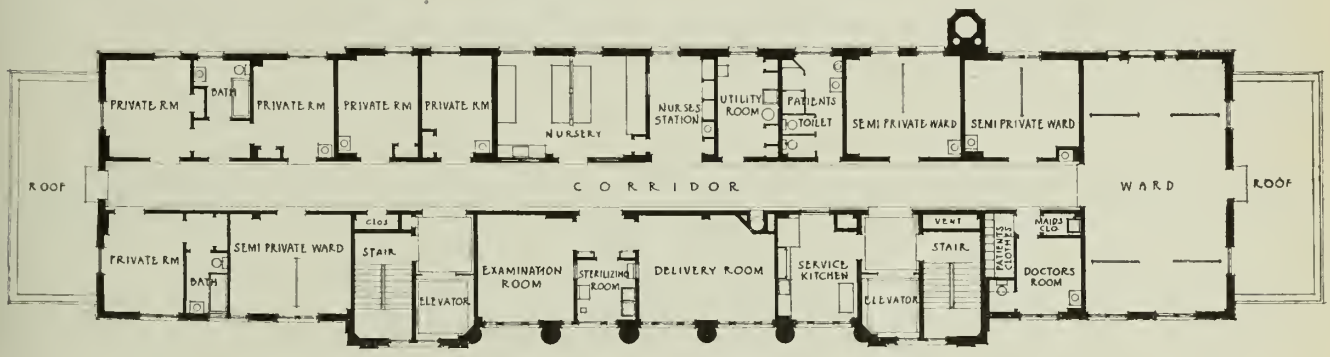
Plan of the third floor, devoted to private suites.

and for light control. The outside skylights above the operating room may be flushed from a perforated water pipe which runs along the top—this simplifies cleaning, and is used to cool the rooms in hot weather. No controlling valves or switches are in the operating rooms, but are in the corridor adjoining. Glass shelves are recessed in the wall for surgical supplies. The floor drains are located out of the field of operation instead of immediately under the operating table; thus an unsanitary condition found in so many operating rooms is avoided. There are no projecting ledges—no lighting fixtures or steam coils above the operating table to collect and diffuse dust.

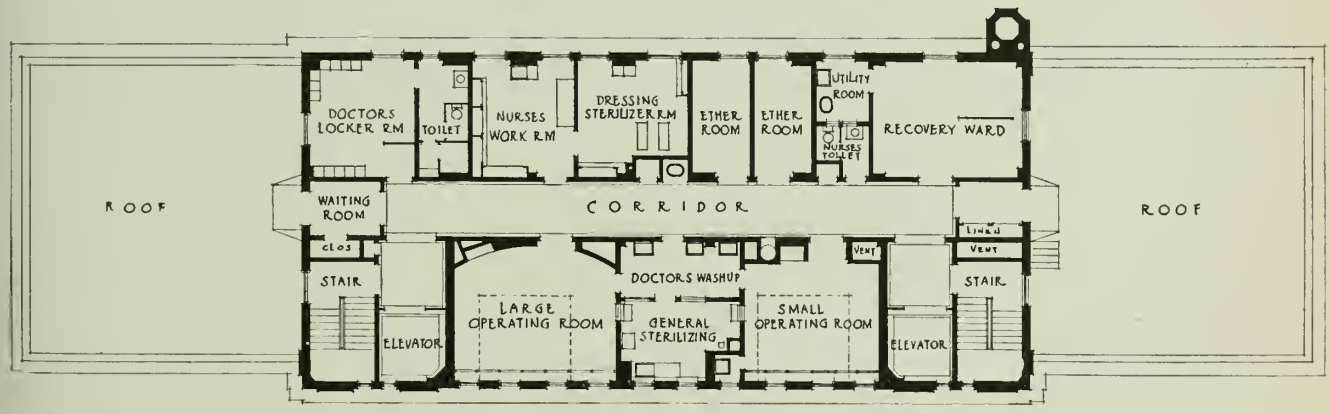
The sterilization room has a window opening into each operating room, operated by arm hooks. These windows give access to the instrument sterilizers, which are opened by foot pedals in both operating and sterilizing rooms, and are thus brought within the field of the sterile nurse.

Rooms for anesthetizing patients, a recovery ward and other necessary accommodations are located within a short distance of the operating rooms.

In the mezzanine floor above the operating suite is a fully equipped pathological laboratory. All of the most approved appliances for general laboratory work are provided.



Fourth floor plan, maternity department.



Fifth floor plan, showing operating suite.

It has been the aim of the designers to provide as nearly perfect operating conditions as possible.

The heating system is under thermostatic control and is of the direct indirect type.

Illumination, both natural and artificial, enters the rooms through a gray glass ceiling that prevents glare and gives the operating surgeon a shadowless light. Above the ceiling a circle of lamps is focused by powerful reflectors on the table, and the light may be graduated in intensity through a series of circuits. This system of lighting has been pronounced by many surgeons as the best yet devised. A telescopic gas fixture for use in emergency is encased in a wall cabinet.

The sterile water supply is distributed to the operating, delivery and examination rooms from a Barnstead Still located on the top floor. In each room to which this water is led through retinned brass pipes is a steam coil reheater, so that either cold or hot water may be drawn from the same sterile tap.

Infinite study has been given to the little details. The patients' lights are so placed as to keep glare from the eyes. They are of opalescent glass and each has an extra connection which can be used for a bed light or for electro therapeutic treatment.

The floors are of terrazzo except for the oak floors in private rooms. The floor base serves as a protection to the walls as well as a sanitary

finish. It projects at an angle of 45 degrees from the wall and keeps trucks and beds from damaging the plaster.

The flush door cupboards in the Nurses' Stations serve to store the many supplies needed for the care and comfort of patients.

Every effort has been made to do away with unnecessary noise and unpleasant hospital odors. The elevators are separated from the main corridor by vestibule doors. Self-closing check hinges on all doors prevent slamming, and in addition to these, rubber gaskets are placed around the doors of all patients' rooms as an additional precaution. The quiet rooms, nurseries and delivery rooms are enclosed by triple partitions and double doors. Ventilation has been carefully studied. By the use of transoms and carefully designed windows, natural ventilation is used for all patients' rooms and wards. Artificial ventilation is only used to carry off kitchen odors and to ventilate sink rooms and operating suite.

There are many little details which have been incorporated in the building, making for comfort of patients, or ease of administration, which cannot be touched upon in an article of this sort. The hospital was designed primarily to operate efficiently. The purpose in erecting it was to provide beds for the class of people in Brooklyn for whom there was the greatest need of hospital accommodations.

It has been the aim of the trustees to have the institution mark a distinct step in advance in hospital design and construction, and to this end they have given earnest thought and careful study.

THE PURPOSE AND METHODS OF AIR CONTROL IN HOSPITALS*

By ELLSWORTH HUNTINGTON, Ph.D., Research Associate in Geography, Yale University, New Haven, Conn.

PART II. METHODS OF AIR CONTROL AND THEIR RESULTS

That proper conditions of temperature, humidity, movement, and variability of air are vitally necessary to human life has only recently been realized. Every year thousands of hospital patients die on account of lack of proper air control. In the home, in industry, people suffer from bad atmospheric conditions.

Air control needed for successful manufacture, and for the preservation of works of art has been scientifically obtained. Air control assuring the proper conditions for human life can be as easily secured.

Methods, applicable to all sorts of heating systems, are fully described in this article.

In the light of the preceding discussion, let us review various methods of air control and see how far they fulfill the requirements. Such a review suggests that on the whole we have been going away from the ideal rather than toward it. The old fashioned method of heating a room by means of a stove with a teakettle on top of it had many advantages. It gave a much better degree of humidity than do modern methods, for a boiling teakettle is an efficient agent in keeping the air fairly moist. Again, since a stove grows warm quickly and cools off with equal rapidity, it produces a favorable degree of variability. Moreover, the fact that different parts of a house heated by stoves are at different temperatures is probably beneficial. Two great disadvantages of the old method are that it often makes the rooms much too hot, and that the effects of the heat are often exaggerated by too much moisture. Equally bad are the chilly drafts at some times, and the lack of movement which also often characterizes the air for hours at a time. The open fireplace avoids this last evil, and is an excellent method, provided some provision is made for humidity, and the air is not kept too hot.

Steam and Hot Water Radiator Systems.—Turning to modern methods, it is doubtful whether our system of heating by steam and hot water have any advantage over the old-fashioned stove except in convenience. Any one who has watched the thermometer in a steam-heated house knows that much of the time it is too high, especially when the outside air is fairly warm or when the temperature is rising, even if it has not yet reached a high level. Added to the excessive heat there is extreme dryness; not one house in a thousand and scarcely one hospital in a hundred

*Second installment of an article appearing in two parts, by Ellsworth Huntington, Ph.D., Research Associate in Geography, Yale University, New Haven, Conn. The first installment appeared in the April issue, under the title, "The Ideal Conditions of the Air."

is properly humidified. The dryness makes people chilly and thus demands still more heat. It also makes them highly sensitive to the slightest draft or movement of the air and thus leads to the closing of doors and windows and consequently to complete stagnation of the atmosphere, to deadly monotony of temperature, and to atmospheric impurity. Thus, in houses and hospitals heated by direct radiation from steam or hot water pipes, unfavorable conditions are likely to prevail in each of the five main respects, namely: temperature, humidity, purity, movement, and variability. This is a sinister fact, but it should by no means cause discouragement. Such conditions, although people are not conscious of it, are probably an important factor in increasing the modern tendency to go South or to California in winter.

Even where it is necessary to retain the system of heating by means of steam or hot water radiators, the condition of the air can be enormously improved. In such a hospital every ward ought to be fitted with dry and wet bulb thermometers. The nurses should be obliged to keep careful records and should pay special attention to getting the correct wet bulb reading by keeping the cloth jacket fresh and by fanning the bulb two or three minutes before taking the readings. They should also be taught to take immediate measures if the dry bulb registers above 68° or if the relative humidity falls below 50 per cent. They can be taught this just as well as they are now taught to take action if the thermometer falls too low.

In order to secure humidity in rooms heated by radiators, the simplest device is to place dishes of water on the radiators or hang them at the rear, but this is utterly inadequate. In cold, dry weather it will scarcely raise the humidity above 30 per cent, and that is not nearly enough. A more effective method is to place pans of water on the radiators, and increase the evaporating surface by suspending cloths like wicks so that they project horizontally over the edge of the pans and expose their moistened surfaces to the rising current of warm air. A fairly good device of this sort is on the market. It is not easy, however, to get large wicks with sufficient absorbent power. Nor is it easy to keep the wicks from becoming coated with mineral matter and thus losing their absorbent quality. Perhaps the best method is a recently patented device whereby a metal pan covered with a grating is constructed so that it looks like the top of the radiator. In the pan lies a coiled pipe which is connected directly with the source of heat and can be operated independently of the radiator. When water is let into the pan either by hand or by an automatic valve, it is heated by the coil and can be kept at a much higher temperature than would be possible if it were heated solely by the radiator. I have not seen this device in operation, but among the many that have come to my attention it seems the best for use with steam and hot water. The inventor is a hospital superintendent, Dr. Olson of the Swedish Hospital at Minneapolis, and would probably be willing that hospitals should use his method, provided they do not offer it for sale. Any local metal worker could install it, and if artistic considerations are not given too much weight the cost per radiator ought not to exceed six to ten dollars.

In rooms heated by direct radiation from steam and hot water radiators, it is not easy to get the constant gentle movement which is one of the factors that make outdoor life so beneficial. Nevertheless, if one window is kept open a little at the top, it will create a gentle but steady movement which will do much to create right conditions. If it is also made compulsory for the nurses to open the windows every two or three hours and keep them open till the air has cooled three or four degrees, the net result will be far better than the present conditions. In this connection it is desirable to emphasize the importance of opening windows at the top as well as the bottom, and of having deflectors at the bottom to control the air current. Not only does this prevent drafts, but it takes out the upper strata of air which are the hottest and most vitiated, and it also causes circulation throughout the entire air mass of the room instead of only at the bottom. The one thing needful in order to secure moderately good conditions is constant vigilance in teaching the nurses to watch the temperature and humidity and to open the windows often. At the same time, the patients must be carefully shielded from drafts by using good judgment as to how wide the windows should be open. In the coldest weather a fraction of an inch may be enough.

Hot Air Furnaces.—Turning now to ordinary hot air furnaces, the difficulties are much the same as with radiators, namely, too high temperature, too little moisture, and too little variability. There is an advantage so far as movement of the air is concerned and in purity provided dust from the cellar does not enter the fresh air duct. The remedies for high temperature and lack of variability in this case, as in the other, lie in constant watchfulness and in an intelligent use of the windows, particularly by opening them in part from the top and by installing deflectors at the bottom. In order to get the right degree of

humidity it is possible to use pans and wicks, as with radiators, placing them either outside the registers or within them. A much more effective method, however, can usually be followed without great expense. At the top of every hot-air furnace within the air space there is room for a shallow metal pan of large area, the larger the better. It may have to be ring-shaped or irregular as circumstances may demand. It should touch the walls of the furnace to such a degree that in the coldest weather the water in it will reach a temperature of 140° to 160°, while in warmer weather when the furnace is not so hot, it will still give off moisture. In the absence of exact data as to the mutual relations of the evaporating surface, the temperature of the hot air chamber, and the volume of air passing in from the cold air ducts, the best method is to have the pan made as large as possible and with abundant contact with the wall of the furnace. Then have it divided into a number of compartments, so that part can be cut off if the amount of moisture is too large. The central compartment should be connected with the water system, and the flow of water should be controlled by an automatic valve such as is used in the tank in a bathroom. Such a system, together with proper doors to get at it, could be put into almost any ordinary house furnace at an expense of from forty to sixty dollars. If made sufficiently elastic by having a number of compartments so placed that the water can be heated more or less and the evaporating surface varied as circumstances may demand, there seems to be no reason why houses or hospitals with hot air furnaces should not be made almost ideal in humidity.

With this method, as with every other, much depends on the care with which it is worked. Someone must be responsible to see that there is not too much moisture or too little. Even so small a thing as neglect to renew the cloth casing of the wet bulb or failure to fan the bulb properly may render all the other good work useless. One type of carelessness may cause the air to appear sufficiently moist when it is harmfully dry. Another may allow the rooms to become too moist and lead to precipitation which is of course harmful. So important is this that it may pay to keep in use the smaller electric fans during the winter and employ them to fan the thermometer two or three minutes before readings are taken.

Indirect Heating Systems.—We come now to the most highly developed modern systems of heating, namely: the indirect systems in which air is warmed by passing over pipes or radiators heated by steam or hot water and is then blown into the rooms. With such a system any desired combination of temperature, humidity, variability, and movement can easily be secured. The Boston Art Museum furnishes a good example. It is one of the very few places in Boston where the humidity as well as temperature approach at all closely to the ideal. Even there, however, no attention is paid to variability, and the object of the humidification is not to benefit the visitors and workers, but to preserve the pictures and their frames, the woodwork, carvings, tapestries, inlaid work, and other precious objects.

The four parts of a system such as is used in the Boston Art Museum are (1) the humidifying chamber, (2) the steam-heated radiators that warm the air both before and after humidification, (3) the fans that drive the air through the building, and (4) the ducts that carry the air to the galleries. Return ducts may bring the air back for purification and recirculation, but these are not essential, although they save expense.

In the humidifying chamber some rapidly revolving "breakers" or paddle wheels a foot or two in diameter are placed beneath open ended pipes from which flow streams of water. The water is automatically pumped from a tank which is kept at any desired temperature by means of steam pipes. As the water falls on the wheels it is showered violently in every direction so that the chamber is filled with fine spray—a regular mist. The surplus water simply falls to the ground where it runs back to the tank to be used once more. To compensate for the water absorbed by the air in passing through the chamber, fresh water is let into the tank by an automatic valve.

Through the misty humidifying chamber, under the impulse of the fans, there passes a steady stream of air which has been partially warmed by a set of steam radiators. As the air passes through the mist it absorbs moisture until it is saturated. It also carries with it a certain amount of condensed water in the form of droplets of spray. These are removed by a series of metal plates called baffles through which the air is forced in a circuitous path. It then passes once more through a second steam radiator, where it is raised to a temperature somewhat above that desired in the rooms, this being necessary in order to provide for the loss of heat while the air is on the way through the ducts.

Controlling Degree of Humidity

The degree of humidity given to the air can be controlled absolutely. It depends entirely on the differences in temperature between the air as it leaves the humidifying chamber and when it reaches the rooms. If the two places have the same temperature the humidity will be 100 per

cent; if they differ by 20° the humidity will be in the neighborhood of 25 per cent. In the galleries of the Art Museum the humidity is ordinarily kept at about 60 per cent to 70 per cent with a temperature which is supposed to be only a little above 60°, but which actually runs a good deal higher. It was 66° on a cold winter day when I visited the place. The engineer in charge of the heating plant makes the interesting comment that when the air is at the same temperature in the humidified and non-humidified parts of the museum, he practically never receives any complaints of low temperature from the humidified part, even on days when he gets a good many from the other part. This is especially true on cold days when the unhumidified air is very dry. On such days there are complaints even when the temperature is the same as on other days when nothing is said. The reason is merely that the dryness causes so much evaporation that the air feels cool. With the proper humidity the ordinary person is comfortable with a temperature 5° or even 7° lower than he wants when the air is extremely dry. The engineer also says that once or twice when by accident he has let the fan run too long, the air has reached a humidity of toward 90 per cent and he has received complaints of chilliness and moisture. This means that there are minute droplets of water in the air. It illustrates the important, but neglected difference between condensed or unassimilated moisture and that which is vaporized and thus assimilated by the air. Condensed moisture, even though the droplets are invisible, makes the air raw and clammy. Genuine vapor, on the other hand, merely makes the air feel soft, warm, and spring-like.

The Proper Use of Indirect Heating System.— There is a common and entirely justifiable feeling that the most highly perfected systems of heating and washing the air have been a failure. Instead of improving health they have injured it as appears for example, in the respiratory diseases in New York schools. The trouble, however, does not lie in the systems themselves, but in the failure to utilize their possibilities. In ordinary practise such a system washes cold air in cold water, and then heats the air and blows it into the rooms. It thereby gives it purity, movement, and the right temperature. The failure lies in the neglect of humidity and variability. In order to improve the humidity all that is needed is to warm the air somewhat before it enters the washing chamber, which then becomes a humidifying chamber; and also to warm the water in the tank. These improvements involve no expense except for (1) a small primary heater to warm the air before it passes to the heating chamber, and (2) a few pipes in the water tank. The variability can be improved still more easily. All that is needed is a byepass, or additional duct whereby outside air can be conveyed directly to the circulating fans and thence to the main ducts without passing through the radiators. After the temperature has hovered around 68° for an hour or two the byepass should be opened. Fresh air can then be admitted in such quantities that in ten or twenty minutes the temperature will fall to about 64°. Then the warming up process should begin and proceed with about the same speed or perhaps more slowly. This cycle should be repeated once in two hours. Experience will doubtless cause many changes in the figures here given, but the principle seems thoroughly grounded.

The proper use of a heating system such as is here described not only supplies air which is ideal in temperature, humidity, purity, movement, and variability, but also has other advantages. For instance, it can be used to cool and dry the air in summer as well as to warm and moisten it in winter. The one process is no less important than the other. Every summer we kill thousands of patients in the United States because we keep them in air of high humidity and high temperature. If a hospital is equipped with a proper system of air control, all it has to do is use cold water supplied by artesian wells or by a refrigerating plant, and the patients can have the same ideal conditions that they enjoy in the best part of the spring and fall and that they can also enjoy in winter.

Air Control System as Disinfectant

A proper system of air control also has great possibilities as a disinfecting agent. Mr. L. W. Swift of North Hatfield, Mass., has a tobacco factory fitted with such a system. He states that during the influenza epidemic of 1918 he placed sulpho-napthol in the tank of his machine each morning and thus distributed treated air to every nook and cranny of the factory. Among his one hundred employees there was not a single case of influenza. How far such an application is possible I do not know, but it seems to offer bright prospects for a great reduction of contagious diseases and especially for the stamping out of the incessant epidemics of colds which are one of our greatest scourages. If the air were not only properly controlled, but also disinfected in our schools, churches, theaters, office buildings, factories and other places where people congregate, colds might perhaps become as rare in winter as in summer.

Another possible advantage of the fan system of heating and humidification is that it allows much economy of coal, since the air can be recirculated. The plan here advocated of admitting outside air every two hours or so would insure the freshness of the air. The only doubtful point is the ability of the humidifying chamber to remove all disease germs, but with the aid of disinfectants this is probably practicable, provided the infections are of a mild character. Much study of this point is needed, however, and it would be folly to recirculate the air if there is the slightest danger of spreading dangerous diseases.

The Operating Cost of Proper Air Control.—Proper air like most good things must be paid for. The only question is whether the price is too high. A few actual figures will show that the price is low if it carries with it a tithe of the benefits suggested. To begin with the cost of upkeep at the Boston Art Museum during the five years since the system was installed the repairs have consisted only of the renewal of one bearing. The main expense is for power to the fans that drive the air. There are two of these, and each costs 53 cents per hour. As the second fan is run only in very cold weather the cost per day on a 24 hour basis would be about $14. This sum sounds large, but it supplies 30 to 60 thousand cubic feet of air per minute, and suffices for a huge wing 77x303 feet in size and 41 feet high. The consumption of coal for this part of the building in the warm winter of 1918-19 amounted to about 325 tons, or approximately two tons per day. Aside from the coal and the fan the cost of operation, upkeep, and incidentals on this part of the heating plant may be roughly estimated at about $12 a day, making a total daily cost of $42. On this basis the work of humidifying, purifying, circulating, and varying the air, adds about 50 per cent to the cost of merely heating it. Against this, however, must be placed certain saving. The first is a saving in coal. This is affected chiefly through the recirculation of the air, but also by maintaining a lower temperature than is now usual. Again in rooms with high ceilings the upper air is often 10° warmer than the lower and thus a great amount of heat is wasted. With proper circulation, however, the top of the room and the floor have the same temperature. In fact, if the air were properly circulated at all seasons there would be no reason for making a large room any higher than a small one, and thus there would be a great saving not only in heat, but in building material. Another saving comes in the item of cleaning, dusting, and so forth, for with properly washed air this is reduced to a minimum. When all allowances are made it appears that the operation of an ideal system of air control such as we are here considering will ordinarily involve a cost of perhaps 40 per cent above the cost of an old-fashioned system of heating by direct radiation. The saving of even a few lives would make such an expense well worth while.

The Cost of Installation.—The first cost of installing a good system of air control is by no means so discouraging as might be feared. The great system at the Boston Art Museum cost about $5,000, and would now cost perhaps $6,500. This was 8 per cent of the entire cost of the heating plant, and would probably have risen to between 15 and 20 per cent if the entire museum had been humidified. An equipment sufficient for a ward 25x40 feet could be installed for from $800 to $1,000 according to the difficulty of putting in ducts. It would cost 60-75 cents a day to run the fan. Four wards of similar size could be equipped for $1,300 to $1,600. In order to make the matter more concrete I have obtained an estimate from a manufacturer of ventilating machinery. For this estimate I am indebted to Mr. D. P. Gosline of Boston who installed the humidifying system in the Boston Art Museum. I am also indebted to him for verification of the other figures in connection with the cost of humidification, except that those for the Boston Art Museum were derived from Mr. Samuel Dick, engineer of that building. The first estimate is for a portion of a Boston hospital where the direct system of heating by radiators is now in operation, but where the walls contain ventilating ducts which could be connected with a fan system in the basement. This part of the hospital has four floors each capable of accommodating thirty patients. The manufacturer's estimate reads as follows: "The cost to supply and install the required apparatus, including the rearrangement of the heating surface and air supply ducts in the basement will not exceed $4,200. This includes automatic control of heat and humidity as well as the motors necessary, but is based on the supposition that all electric wires or other necessary services will be supplied in the building. The proposed apparatus will have sufficient capacity for 120 patients and arrangements are included for using the same as a disinfecting apparatus if required."

On the basis of the figures here given it appears that for an average hospital of 100 beds the cost of installing a proper system of air control may be estimated at somewhere in the neighborhood of $4,000, while the cost of operation will average approximately $5 per day, or 4 cents per patient. Needless to say, these figures will vary greatly

from place to place, but they show that in view of the manifold benefits, the cost is by no means prohibitive. In reckoning the benefits, it must be remembered that there will be not only a saving of lives but a corresponding reduction in the discomfort of all patients and in the duration of their stay in the hospital.

The Present Use of Humidifiers.—Most people have little idea of the extent to which up-to-date systems of humidification and air control are now in operation. They are a matter of course in all sorts of manufacturing industries. No cotton mill would think of operating without a humidifier. Otherwise the dry threads would constantly break and make no end of trouble. In wool and silk mills the humidifier is also one of the most essential kinds of apparatus. Bakeries employ the same method in order to raise their bread in warm moist air where the yeast will thrive. So, too, every little cigar factory as well as every big one, has some sort of humidifier, and in most cases these are of types that could be used in homes and hospitals. The occupations thus far mentioned want air that is warmer and moister than the ideal for man. Certain others want coolness and dryness. For the manufacturer of films such conditions are of the first importance. The same is true in the candy trade where coolness and dryness are desirable in the so-called starch rooms where the candy is formed in the molds, and also in the dipping rooms where chocolates are coated. The same machines which give the cigar maker his moisture and warmth give the candy dipper coolness and dryness. Half a dozen types of apparatus are on the market, so the hospital superintendent can easily find something well fitted to his needs.

These facts are a terrible reflection on our civilization. We have found out just what sort of air is needed not only for works of art, but for movie films, silk dresses, woolen coats, and cotton sheets. We make humidifying machines that enable our cigars to be rolled without cracking and our candies smoothly coated with chocolate. Our materialistic civilization spends millions of dollars in perfecting things, mere *things*, many of which are sheer luxuries. Yet when it comes to people, we have had no such success as we have had with things. We have tried to produce the right conditions in schools, hospitals, and other buildings, but we have never carried on any such prolonged and patient experiments as have been tried by the makers of cigars and candy. If we should succeed with people as well as we have succeeded with things, the world's health and happiness would be improved incredibly. We can succeed if only we will try. Shall we not, then, enter upon this supremely worth while effort?

THE USE OF BOOKS IN THE HOSPITAL*

By MARY HAMMOND BARKER, Supervisor of Kindergartens, Worcester, Mass.

THE question in the matter of books for children is not one of how many; it is a question of what to read to children. Now comes perplexity and complexity. A selection of books for children might easily be as varied as the number of children existing in the world today of the "Please read to me" age. Of course there are a few books that are universally loved—books that are safe to add to any collection. These could almost be simmered down to two, and even they have an age limit—"Mother Goose" for the smaller children and "Little Women" for the so-called growing girl. Year after year I ask classes of nurses and teachers to state their favorite book in childhood. These girls are so short a distance from childhood that the answer is always prompt. It is "Little Women" ninety nine times out of a hundred. Sometimes a high-brow with a superior air announces that she never could become interested in Meg, Jo, Beth, and Amy; her favorite is "John Halifax, Gentleman." A mischievous nurse sometimes confesses to a preference for the "Five Little Peppers." I am wondering where "Pollyanna" will stand ten years from now; she must have proved a glad and glittering investment for her author and certain enterprising moving-picture men. To many, "Pollyanna" is as simpering as the "Elsie Books" of our grandmother's days. Elsie's life vocation was weeping. It was considered delicate in a mid-Victorian heroine to weep in a refined manner. Some one investigated Elsie's tear capacity and found that on an average she wept on every other page. That is a large amount of dampness, for the Elsie books run up into ten or twelve volumes, dating from Elsie's babyhood to Elsie's grandmotherhood.

What insipid trash so-called children's literature was in the last century! The bad effect of it, however, was offset by the good stiff work in Latin and Greek in the schools. Translating the "Iliad" and "Odyssey," tramping the historical

*This is the fourth of a series of articles on the recreation and entertainment of children in the hospital and home. The first, second and third articles appeared in the January, February and April issues.

lanes with Alexander and his army, or crossing the Alps with Hannibal, were powerful antidotes. The school readers of the country boy fifty or seventy-five years ago are worth looking into. There were some fine old swinging poems, like the "Burial of Moses" and "Marco Bazaris," and parts of addresses by Burke, the younger Fox, Benjamin Franklin, Madison, and Henry Ward Beecher. These were big, stirring documents, containing ideas and sentiments that aroused the boyish fancy and established the ideals of our fathers and grandfathers. Can't you imagine those country boys in their copper-toed

Fig. 1. Nurse reading Mother Goose rhymes to little patient in the sun porch of the Memorial Hospital, Worcester, Mass.

Fig. 2. Story time for the Orthopedic Cases, Memorial Hospital, Worcester, Mass.

boots on their way home from the one-roomed school house, shouting along the country road, "The Turk lay sleeping in his tent"? And when they made a short cut across pastures, standing on a stone wall or pine stump they would recite, to an audience of rocks, sweet fern and huckleberry bushes, Washington's Farewell Address to the Senate. Every one of those pasture orators expected (in time) to achieve the presidential chair. After all, a high ideal carries a mortal through life as a favorable wind a bonny sailing vessel. What if we never do reach our Port o' Desire, we have at least made a brave passage.

Stimulating Reading Matter Avoided

In this matter of reading aloud to sick children and adults we should always keep in mind the fact that the patient, old or young, is below par mentally as well as physically. It is many times well to avoid the mentally stimulating in reading matter. Religion and politics seem to play the mischief with sick people, either leading them to introspection and depression, or excitement and sleeplessness. If you are caring for a man or woman who is usually keen on national or internationl affairs, it is well to avoid magazines devoted to discussion of these issues. If the patient will permit, read aloud "The Newcomes." Dear old Colonel Newcomes' sweetness of character, friendliness, and financial innocence are good for the modern hustler, male or female. Yes, and read Sidney Lanier's poetry. But a word to the wise—it is sometimes difficult to read poetry to a well and strong American. If he is sick and at your mercy, be most discreet. A whole poem given in one dose might—kill him.

Too much cannot be said about the tendency to say or read funny things to sick people. When you are sick, nothing is funny, and moreover, you never again expect things to be funny. Mark Twain, Oliver Hereford, O. Henry, Carolyn Well and all that tribe are pests to the really sick people. Limericks on the purple cow are a nightmare. When you are very sick, everything tastes purple, and your depression is of a purple to black hue.

Never depend upon your own likes and dislikes in making your selection of books for a patient. Find out his preference. If possible, consult librarians and lists of reading for the sick. As a rule, give to your patient that which makes the least demands upon his weakened power of mental concentration; give reading that diverts but does not excite. As a rule, if a sick patient wants to argue and discuss the subject matter of your reading, it will mean it is a bit too stimulating. When he is well on the road to recovery, and he demands reading along the business or professional line in which he is interested, then this type of reading may be given.

There does come a time, in some cases, for stimulating reading; there are people who, after an acute illness, seem so surprised to find themselves alive, they promptly arrange to become chronic invalids. If this type of patient happens to be a broker, read the daily Wall Street quotations to him. I once knew some one who thought

Fig. 4. An amusement for children who are up and dressed is making picture books for the very sick children. There should be only one or two leaves, and large pictures that tell a story, such as children at play, and animals, in the book for the very sick child.

he was a very sick man. His wife knew better, and she devised a unique tonic. She read from the local paper (previously withheld from friend husband) a report of propaganda set afloat by his political opponent. A few minutes after he asked to have his gray suit sent to the tailor's to be pressed, and stubbornly refused to eat another meal from a tray.

A friend of mine who has a strong humanitarian streak in her make-up, cuts out interesting stories from magazines. These she puts into attractive covers. There are from two to eight or ten short stories in each of the home-bound volumes. When she hears of a shut-in friend she sends a few copies for convalescent reading. These attractive little booklets are so light in weight and convenient to hold that even a very sick person can enjoy them.

With the Children

Sit near the patient when reading or telling a story. (Fig. 1.) Keep the voice low but clear. A sick person actually suffers when people read in a too loud or in sharp tones. They also become fatigued when they cannot hear distinctly. Another thing to keep in mind is not to lay books on the patient's bed or strike the bed with your foot or chair. Be sure your patient is in a comfortable position, well covered, if on a porch, and eyes shielded from the light. If you are reading to a patient in a hospital ward, draw a screen part way about the bed. The life of the ward cannot be interrupted, the screen excludes the necessary activities from your listener and simplifies his environment. Under these conditions the period of reading refreshes him. With children (Fig. 2) get all the walking or chair patients off by themselves for story telling or reading aloud. They enjoy the coziness of the seclusion, and it is always easier to hold their attention.

With the bed cases in the ward I am convinced that it is better to tell the story than to read it aloud. Find a spot where you can see each face and where the voice carries well. The best time is usually midway between dinner and supper time. Doctors and nurses make rounds in impressive formation in the morning; then the children have baths and treatment that take up their time until one o'clock; after this comes rest time. By three o'clock a restlessness comes over the ward. The lady who can tell a story is cordially welcomed. "Gosh! A fellow's gonna miss this when he goes home," said little Dan Scully, who had been in traction for three months in the New York Orthopedic Hospital. He had laid motionless up to the last word of "Jack and the Beanstalk."

An amusement (Fig. 4) for children who are up and dressed is making picture books for the very sick children. This means hunting up pictures in old magazines, classifying as to subject, then mounting them on pages made from newspaper or brown wrapping paper. These may be pinned or tied in the center. There should be only one or two leaves, and large pictures that tell a story, such as children at play, and animals, in the book for the very sick child. Avoid a large, unwieldy background for mounting these pictures. They are troublesome for the very sick child to hold.

The best report on the way to build up a hospital library and the use of books among patients is to be found in *The Nurse,* February, 1916, by Edith Kathleen Jones, librarian of McLean Hospital, Waverly, Mass. The city library of Springfield, Mass., issues two lists under the titles, "Some Books for Boys and Girls" and "Romance and Adventure," the latter a list for young people. The New York Public Library has the following list for young people: "Stories of the Sea,"

Fig. 3. The little sick child is just able to take an interest in pictures. The screen is drawn part way about the bed in order to exclude the ward activities from the patient, and simplify his environment.

"Heroism," "Patriotism" and "Favorite Stories." The Worcester Public Library, Worcester, Mass., has an excellent list for the use of parents when selecting holiday gifts for children. A revised, very carefully chosen list for children of varied ages has been compiled by the Children's Librarian of Carnegie Library, Pittsburgh, Pa. A list for hospitals is issued by the St. Louis Public Library. The following brief list is submitted for adults: "The Day's Work," by Kipling; "Cap'n Eri," by Lincoln; "Mary Cary," by Bosher; "Opal," by Hoover; "Mrs. Tree," by Richard; "Casting Away of Mrs. Lecks and Mrs. Aleshine," by Stockton; "The Virginian," by Wister; "Treasure Island," by Stevenson.

Fig. 5. A little patient enjoying the picture book made by some of the ward children.

Almost anything of Leacock's, that delightful Canadian, is good to read aloud. David Grayson writes charmingly of life on a remote Northern farm.

Works of Trollop, Thackeray, Hawthorne, Dickens and Irving are standard good reading. The sick person of literary vision seems to enjoy spending the length of an afternoon in the lovely, sunny, box-scented English gardens of Jane Austen's books. To tell the honest truth, the only time some of us have to spend in a garden is when we are sick.

With children who have been quite ill, avoid the supernatural, such as wicked fairies, hobgoblins, and giants. At first (after a serious illness) give even the eight to twelve or fourteen year old child the well known stories usually of interest at half that age, as "Mother Goose," "Jack and the Beanstalk," "Cinderella," "Peter Pan," by Barrie, "Little Lord Fauntleroy," "Five Little Peppers," Kingsley's "Water Babies," Selma Lagarlöf's "Adventures of Nils," and, of course, "Little Women" for the girls and "Tom Sawyer" for the boys. Very small children need little beyond the "Peter Rabbit" stories, "Mother Goose," and "Little Black Sambo." The books of the following authors are staple articles for the convalescent child: Kate D. Wiggin, L. M. Olcott, F. H. Burnet. Kipling's "Captains Courageous," Defoe's "Robinson Crusoe," E. M. Tappan's "Heroes of the Middle Ages," any of Andrew Lange's fairy tales, and, of course, "Uncle Remus," by J. C. Harris.

THE FLORENCE NIGHTINGALE PLEDGE

I solemnly pledge myself before God and in the presence of this assembly, to pass my life in purity and to practice my profession faithfully. I will abstain from whatever is deleterious and mischievous, and will not take or knowingly administer any harmful drug. I will do all in my power to maintain and elevate the standard of my profession, and will hold in confidence all personal matters committed to my keeping and all family affairs coming to my knowledge in the practice of my calling.

With loyalty will I endeavor to aid the physician in his work, and devote myself to the welfare of those committed to my care.

"He who lets the world choose his path of life for him has no need of any other faculty than the ape-like one of imitation. He who chooses his own plan for himself employs all his faculties. He must use observation to see, reasoning and judgment to foresee, discrimination to decide, and when he has decided, firmness and self-control to hold his deliberate decision."—John Stuart Mill.

Degrees infinite of luster there must always be, but the weakest among us has a gift, however seemingly trivial, which is peculiar to him, and which, worthily used, will be a gift also to his race forever.—Ruskin.

HABITS AND HEALTH

Organized society may purchase the extinction of the malarial mosquito. It may buy the eradication of the yellow fever mosquito, the rat of bubonic plague, the tick of spotted fever, the fly of sleeping sickness, or the louse of typhus fever or of trench fever. Organized society may buy clean, pure water, and it may purchase a successful food inspection. But it cannot buy habits of personal hygiene that produce human health; that defend the individual from disease and postpone his death. It cannot purchase health habits that give the individual resistance to disease, making it harder for him to become sick and easier to recover. It cannot purchase the personal consciousness of individual obligation in the health affairs of the community that is essential to an effective defense of the community health.—T. A. Storey, M.D., Ph.D., on Physical Training.

Science . . . necessitates a faith commensurate with the grander orbits and universal laws which it discloses. Yet it does not surprise the moral sentiment. That was older, and waited expectant these larger insights.—Emerson.

The work of science is to substitute facts for appearances, and demonstrations for impressions.—Ruskin.

ILLINOIS NEW STATE INSTITUTIONS AND HOSPITALS

By A. L. BOWEN, Superintendent of Charities, Department of Public Welfare

THE last general assembly of Illinois made a number of appropriations to the State Department of Public Welfare for new institutions and new hospitals at existing state charitable institutions. These appropriations were available last July 1, but as the Department and the State Architect, Mr. Edgar H. Martin, were desirous of producing something which would be an improvement on anything the state has along these lines, plenty of time was allowed for the study and preparations of plans. Developments have reached the stage where blue prints of the block plans of the institutions and the details of the hospitals may be submitted for public inspection.

RG
TB
TB
RAIL ROAD
CUT
DEEP
FILL
ILLINOIS CENTRAL
NOTE WINDING ROADS FOLLOW, AS NEARLY AS POSSIBLE, THE CONTOUR
LEGEND.
XXX ETC COTTAGES FOR STAFF
No 1 ADMINISTRATION AND RECEPTION
" 2 KITCHEN
" 3 DINING HALLS FOR FEMALES
" 4 DINING HALLS FOR MALES
" 5 HOSPITAL
" 6 INFIRMARY FOR MALES
" 7 INFIRMARY FOR FEMALES
" 8 GYMNASIUM AND SOCIAL HALLS FOR BOTH SEXES
" 9 SCHOOL FOR CHILDREN BOTH SEXES
" 10 SHOPS FOR MALES
" 11 CHAPEL AND LECTURE HALL BOTH SEXES
" 12···38 COTTAGES FOR MALES
" 13 SHOPS FOR FEMALES
" 15···39 COTTAGES FOR FEMALES
—→RG TO RECREATION GROUND
—·—·→ TB TO TUBERCULOSIS WARDS
SCALE 0 50 100 150 250 350 FEET
DIXON STATE COLONY FOR EPILEPTICS AT DIXON ILLINOIS
DOWNINGTOWN ARCHITECTS CHICAGO

Fig. 1. Block plan of the new colony for epileptics at Dixon, Ill. The available funds will be used to construct buildings marked 1, 2, 5, 6, 7, 8, 9, 11, this summer. The colony is located upon rolling ground, and the style of architecture will be Old English.

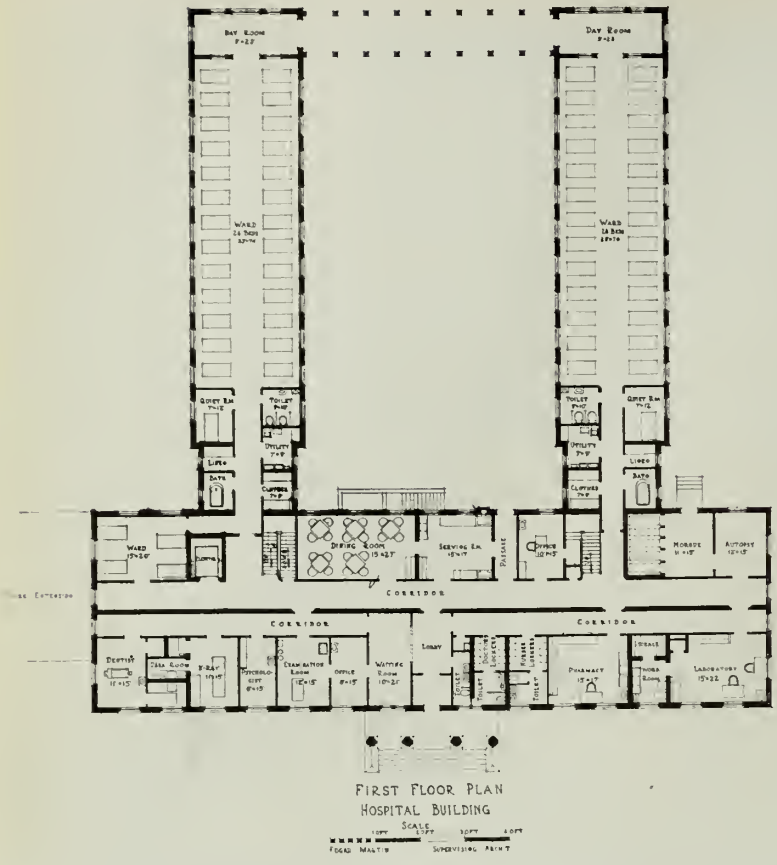


Fig. 2. Plan of the first floor of the model hospital for acute physically sick, to be erected at the Dixon institutions, Alton and Elgin State hospitals. This building is for bed patients, day room and dining room service being provided only for a small number. The sketch indicates the method of enlargement to meet future growth.

Before elaborating on the plans, a brief history of the Dixon State colony and the Dixon State hospital may be given.

Initial Appropriation Made in 1919

In 1913 the legislature made the initial appropriation for the creation of the state colony for epileptics, and a site of 1,200 acres was selected adjoining the northeastern limits of the city of Dixon. The Illinois Central railroad cuts this tract into halves traversing the site through a deep cut. The half lying nearer to the city of Dixon is comparatively level, while that beyond the railroad and bordering the Rock River, which forms one boundary, is very rough and picturesque—in fact, one of the most beautiful spots in the whole state.

It was decided to build the colony on the half nearer the city. Ground plans for an institution to accommodate four thousand or five thousand patients were drawn. A power plant, a bakery, a laundry, a water system, including underground mains, sewers, and a tunnel system big enough for the completed plant were built. A small administration building, two groups each of three cottages for patients, a dining hall and a kitchen were erected to accommodate three hundred in all. These were about ready for opening when the Department of Public Welfare assumed charge of the state institutions on July 1, 1917. As the war had then begun and labor and material necessary to make the existing building habitable were not available, great delay ensued. It was not until May, 1918, that applicants for admission were accepted.

Although the opening of the institution was announced in the press throughout the state, and county judges, state's attorneys, and welfare organizations were twice circularized, less than one hundred applicants for admission were received. It was apparent that the accommodations for three hundred patients would not be filled, and it was still more apparent that it would be wasteful to operate a plant built for an ultimate capacity of four thousand to take care of the very small number of patients.

Care of Feeble-Minded

In recent years the subject of the care of the feeble-minded has received increasing consideration in all progressive states. Courts, police schools, and the home, have all been understanding what a burden the care of the feeble-minded imposes on the community, and have been demanding larger relief from the state. As the State School and Colony at Lincoln has been the only institution in the state for feeble-minded, and as a second institution for feeble-minded has been advocated for a number of years, the department saw in the situation at Dixon a solution of the problem. It submitted to the general assembly a proposition that the plant at Dixon be converted and enlarged at once to ac-

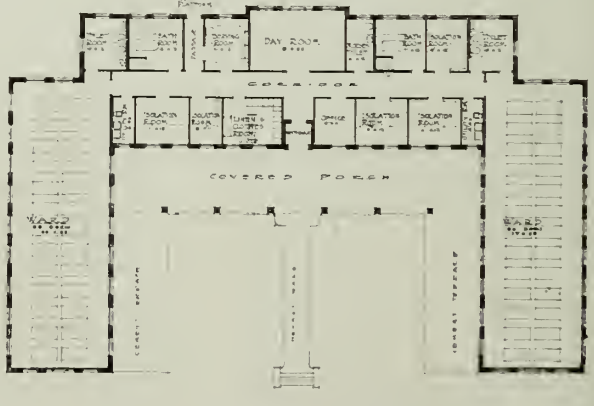


Fig. 3. Floor plan of the model infirmary building to be erected at Alton State Hospital and Dixon institutions. The plan is similar to that of the cottages for tuberculars, except that the walls are of different construction. This single-storied structure will have cross ventilation in both directions.

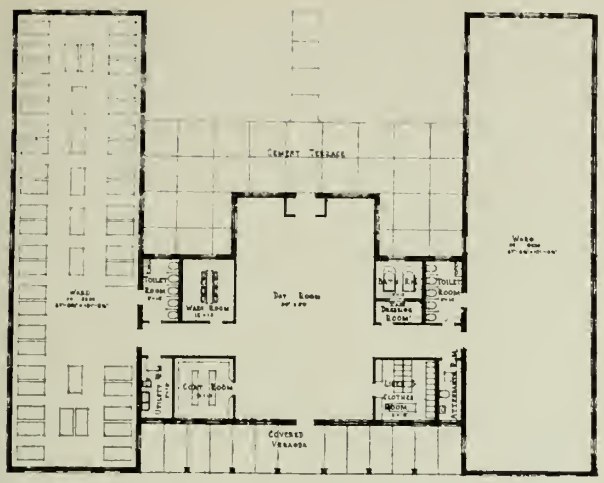


Fig. 4. Floor plan of model cottage for custodial patients to be erected at Dixon State colony and Alton State Hospital. The day room has light and air from two sides, with covered porch on one side and an open cement terrace on the other. Single story.

commodate one thousand feeble-minded, and that on the half of the tract fronting the river a new colony for epileptics to house three hundred patients be constructed. This plan was feasible because the utilities already in operation, such as the power plant, water system, laundry, store house, refrigeration, electric lighting, power, and septic tank were all ample to supply both branches of the proposed project. This plan insured a speedly solution of some of the problems in the care of the feeble-minded. It also would relieve the pressure upon the state for their housing.

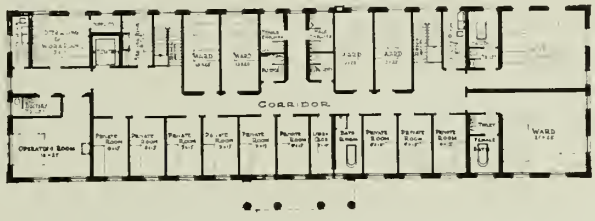


Fig. 5. Plan of the second floor of the model hospital for the acute physically sick. The operating room and necessary accessories are located here.

It was proposed that the hospital for acute physically sick, and the auditorium for amusement and entertainment, be located on the side where the feeble-minded are housed, but that both sides of the institution should have the use of them. This plan the legislature approved by unanimous vote.

Pond & Pond are drawing the plans for the epileptic colony which will be known officially as the Dixon State Hospital. This new institution will stand on a magnificent site overlooking a wide expanse of rolling lawn and natural forest towards the river, and beyond it the hills and fields. Illinois contains no other institution site to compare with it in scenic beauty.

The architects have laid out an institution scheme which is to furnish a guide for many years to come. An effort has been made to escape stereotyped plans. Until the hospital population reaches one thousand or fifteen hundred the kitchens on the other side of the railroad will be depended upon. A place, however, has been set aside for the installation of all such utilities.

The cut accompanying this article shows how Mr. Martin, the state architect has laid out the colony for feeble-minded and has worked into his scheme the existing building. No radical modifications of the original lay-out of this institution has been made.

All buildings in these two institutions housing patients will be one-story high, except that the main pavilion of the hospital building will be two. These buildings will be without basement. The walls will rest upon concrete foundation, so there will be no crevices or harbors for vermin. The core of the walls will be of concrete blocks. These are made by the patients. The outside will be veneered with brick—the inside faced with glazed brick to a height of eight feet. Dormitory ventilation will be accomplished through the ceiling and roof. The latest ideas in toilet room equipment and floors will be installed.

The plan of the hospital for the acute sick, it will be seen, is capable of enlargement by the addition of units. This basic plan has been adopted for the hospital at the Dixon institutions, the Elgin State Hospital, and the Alton State Hospital. Each one is designed for a small number and will care for only those with acute physical illness. This will prevent the housing of infirm and crippled in hospital wards. Special wards for these cases are being devised under the name infirmary. Among plans for other projects to be erected at Dixon and Alton are those for a model infirmary. We also show plans for the model cottage for tubercular patients to be erected at the Lincoln State School and Colony, Alton State Hospital, and the Dixon institutions. The cottages are grouped, thus bringing the receiving service, the hospital, and the infirmaries into close prox-

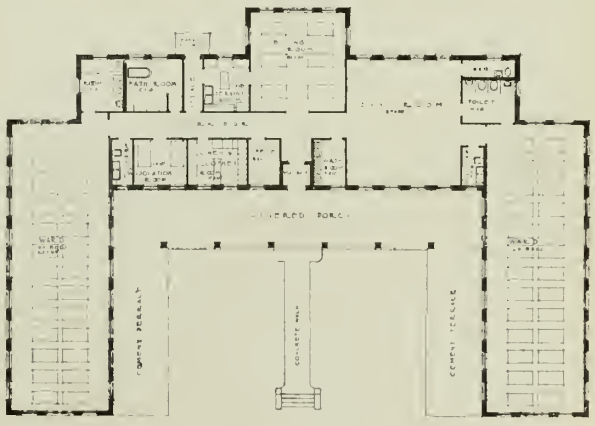


Fig. 6. Floor plan of the cottages for tubercular patients to be erected at Lincoln State School and Colony, Dixon State Colony, and Alton State Hospital. The wards are provided with three sash windows so that all four sides can be thrown

imity for the convenience of the medical staff and nursing service.

We have included in the sketches, plans for cottages for custorial mental cases. These are to be erected at Dixon and Alton State hospitals.

From a practical standpoint, let us call attention to the actual contribution to these buildings made by the patients themselves. At Lincoln they have made the excavations, formed the concrete blocks for two large buildings. The contractor begins at the water table and uses the blocks made by the patients. At Alton patients are making the blocks for ten new buildings. At Dixon they are making blocks for nearly a million dollars' worth of buildings. In addition, they are getting out the rock and crushing it for roads, concrete blocks, and foundations, and are also producing all the gravel and sand needed for the new buildings. At the Elgin State Hospital the patients are to get out the sand and the gravel, wash and deliver it to the site of the new hospital, and manufacture all blocks for the walls. Gravel and rock are found at both Dixon and Elgin. For the Alton work, rock will be shipped from the Chester prison.

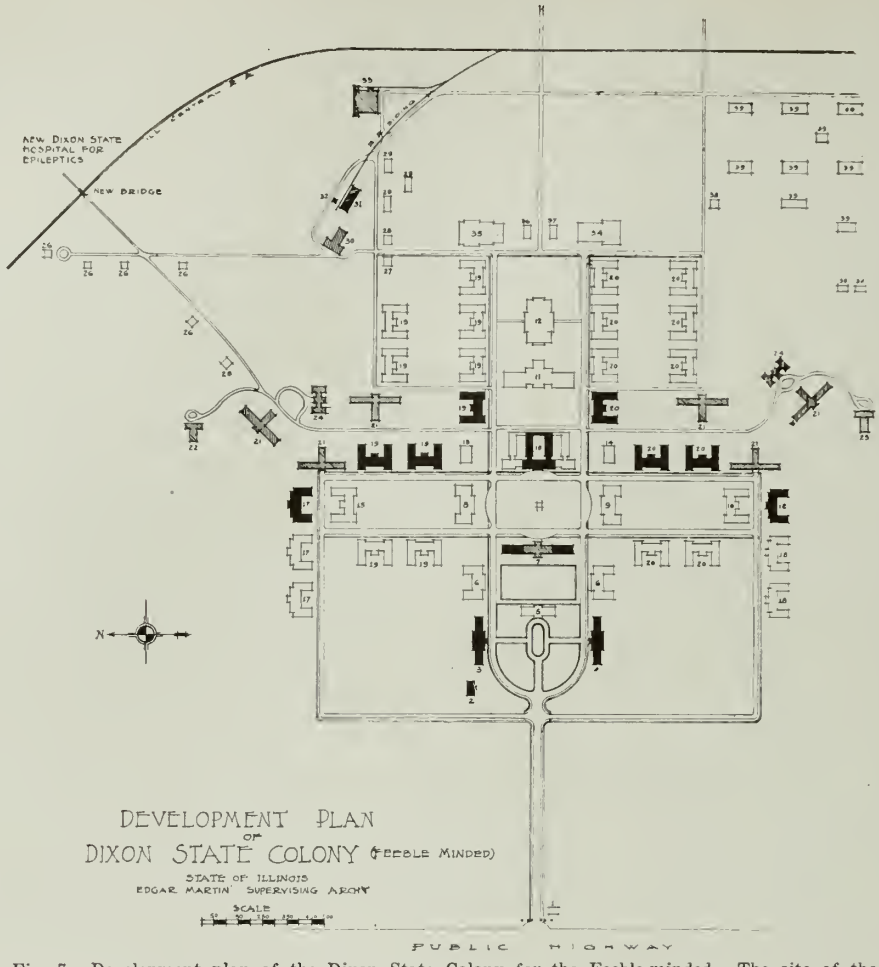


Fig. 7. Development plan of the Dixon State Colony for the Feeble-minded. The site of the new state hospital for epileptics is indicated where the highway crosses the Illinois Central Railroad.

Through the working out of this plan and these economies, it will be possible, even under the present high prices of building material and the increased cost of labor to get almost as much housing space as would have been possible with the same amount of money in 1914.

Renewed impetus has been given to the work of hospital standardization by a gift of $75,000 from the Carnegie Corporation to the American College of Surgeons. This is the second gift made by the corporation to the college for hospital standardization; the amount of the first, made in 1916, was $30,000.

This, therefore, is a law not found in books, but written on the fleshly tablets of the heart, which we have not learned from man, received or read, but which we have caught up from Nature herself, sucked in and imbibed; the knowledge of which we were not taught, but for which we were made, we received it, not by education, but by intuition.—Cicero.

Ignorance is not so damnable as humbug; but when it prescribes pills it may happen to do more harm.—George Eliot.

Wherever there is failure, there is . . . some step omitted, which Nature never pardons.—Emerson.

The learned in books are ignorant of the world. He who is ignorant of books is often well acquainted with other things; for life is of the same length in the learned and unlearned; the mind cannot be idle; if it is not taken up with one thing, it attends to another through choice or necessity; and the degree of previous capacity in one class or another is a mere lottery.—Hazlitt.

Perfection is immutable. But for things imperfect, change is the way to perfect them. It gets the name of willfulness when it will not admit of a lawful change to the better. Therefore constancy without knowledge cannot be always good. In things ill, it is not a virtue, but an absolute vice.—Feltham.

Scientific, like spiritual truth, has ever from the beginning been descending from heaven to man.—Disraeli.

What art was to the ancient world, science is to the modern.—Disraeli.

THE PREVENTION OF CROSS-INFECTIONS IN THE CHILDREN'S WARD OF A GENERAL HOSPITAL

By JOSEPH C. DOANE, M.D., Chief Resident Physici an, Philadelphia General Hospital*

The obligation of the children's hospital which accepts a sick child is a serious one, for every year the morbidity and mortality among children, as a direct or indirect result of cross-infection, is alarming. How the quarantined ward means an economic loss as well as a loss in child life is well understood by those in touch with these problems. The hospital is responsible occasionally for negligence in failing to protect the innocent child from these dangers, though in most instances no direct responsibility can be placed upon it. The mode by which contagion gains entry must be ascertained before the proper precautions may be taken by the hospital.

THE service to the community which a hospital ward renders is in a large measure determined by the competence of the medical attendants and the nursing staff. But no matter how skilled the pediatrician or the attendant nurse, if their services are denied to the public by reason of quarantine, hospital efficiency and equipment is of no practical use to the ailing child.

A quarantined ward is, therefore, a dead loss to those persons who are paying, or are ready to pay, for medical care. Not only from an economic standpoint is such a ward costly to the taxpayer or contributor because the total of hospital days is materially lessened, but in all institutions the *per capita per diem* cost is increased by reason of added nursing requirements, delayed removal of well children, and the cost of disinfection. It is evident, therefore, that when contagion or any other cross-infection which requires quarantine, enters a clean ward, this accident (or mismanagement, as it often is), results in a loss of service and money which is enormous.

From October, 1917, to May, 1918, in four local hospitals admitting children, 10,424 hospital days were lost on account of quarantine which is equivalent to the complete closing for the year of a ward caring for twenty-eight patients, and a loss in money, estimating the *per capita per diem* cost at $1, of $10,400.

Loss of Child Life

But the economic and service loss to the community fades into insignificance when the loss of child life is considered. To the hospital child, be its stay short or long, the late fall, winter, and spring months hold no greater perils than those of hospital cross-infection. We refer to the minor contagions (so often misnamed), as well as to primary pneumonia and other infectious respiratory affections—scarlet fever, diphtheria, and even that milder yet enigmatic disease—vaginitis.

The obligation of the children's hospital which accepts a sick child is a serious one, for every year the morbidity and mortality among children, as a direct or indirect result of cross-infection, is fearful. While in some cases the hospital is guilty of what almost amounts to criminal negligence in failing to protect the innocent child from these dangers, yet in many instances no direct responsibility can be placed on the hospital administrator or the medical staff. Clearly, too, the sick child offers an easier entry to infective organisms than the child at play or at school, and thus the measures which are used to control contagion among well children are not applicable in hospital practise.

It is not difficult to appreciate the mother's oft-repeated complaint that she brought her boy to the hospital to have his tonsils removed, and the hospital not only removed his tonsils but also his presence in school or in the home for a longer or shorter time.

It seems timely, therefore, to discuss briefly some of the methods by which contagion gains entry, as well as to mention some precautions and provisions against such entry.

How Contagion Enters

Let us place infected children who are carriers or who are passing through the period of incubation, first. It is obviously impossible for the admitting physician to detect evidence of contagion in many children who are early in the incubationary period. The child cannot give its own history, and even if the parents are present they know little about with whom Johnny has rubbed elbows at school, or whose stick of candy he has shared. The physician can sometimes learn, however, of a direct contact with contagion, and these cases are diverted before harm can be done.

In a general municipal hospital the problem of

*Read before the West Philadelphia Medical Association, Dec., 1919.

securing histories develops almost insurmountable difficulties. The children come from such varied sources that often the mere placement of a child is accomplishment enough, without the placing agent worrying about such things as what else besides his clothes the child brings to the hospital.

It has long appeared to the writer that social agencies, particularly those organizations doing juvenile charity and court work, are woefully ignorant of and indifferent to the danger of contagion to the hospital child. Many apparently consider it entirely out of their scope of activity to ascertain common sense facts concerning childhood diseases or recent exposure to contagion, rather than the important, but entirely irrelevant facts, as to whether the father makes $20.00 a week, or whether he is faithful to his wife, or whether he is suspected of having venereal disease.

Visitors a Difficult Problem

The next important port of entry seems to be through visitors—a most difficult problem to the administrator. The visits of parents to their children are often one-sided in their benefits. The child soon forgets the familiar features of his mother and the rough caress of his father, and his new love is the interesting cap and gown of the nurse. The visiting day is reassuring to the parents as an oft-repeated proof that the hospital has not exchanged Johnny Jones for Danny Smith, and that the telephone told the truth as to the health of the family idol. The visiting day is something more—a day of danger to every child in the ward, for the hand which brings the new rattle may also innocently hold a contagion, which not one, but every mother's child must share.

Some hospitals have discontinued all visiting to ill children; others have closed their doors to all but fathers and mothers. Many have forbidden the visits of children. The type of hospital and its clientele will determine which of these measures should be adopted.

Contagion may be derived from sources more directly under the supervision of the hospital authorities. I refer to transmission by physicians, nurses, ward maids, laundry, dishes, mattresses, clothing of incoming children, bottles, nipples, thermometers, wash-bowls, and cloths. Here enters the complete responsibility of the administrator for contagious morbidity and mortality. Later mention will be made of these modes of infection.

The Observation Ward

The first and most important barrier against incoming infection is certainly the observation ward or wards. Whenever possible one should not suffice, for it is often necessary to quarantine an already isolated ward. The observation ward should be as carefully set off from the rest of the hospital as if actual rather than potential contagion existed therein. No detail must be neglected. While the ideal observation suite should consist of separate rooms, or cubicles, for each child admitted, few hospitals are thus equipped. Three weeks, when possible, and two weeks certainly, should be the length of this probationary period. Little can be gained by a shorter stay. Each child on admission should be most carefully inspected for developing or fading exanthematous signs. Careful inspection of napkins, worn by children, for evidence of vaginitis, is necessary. Vaginal smears must be taken on all female children, care being taken to prevent the infection of children not already infected, by careless mixing of application, or cover slides.

Taking Throat Cultures

And now as to throat cultures I realize I am treading on dangerous and disputed ground.

At this hospital we have not routinely taken cultures from the throat, for we have found that needless quarantine often result, and that even in wards where there has been no exposure to diphtheria, and cultures are taken for some other cause, a positive report is frequently returned. We prefer the Shick reaction as a protective measure, all patients showing a positive reaction being immediately immunized.

The clothing of the newly admitted child should never reach the observation ward, nor should the admitting nurse, who is required to list and handle such clothing before fumigation, be expected to prepare the child for his bed. It seems almost presumptuous to insist on separate thermometers, wash cloths, and utensils for the child undergoing observation, nor should these precautions end when the child is moved to the so-called clean ward.

Admission of Visitors

And now as to visitors: It has been our custom to forbid visitors to the observation ward; to permit visitors, properly gowned, to the clean wards. It has already been hinted that, if practicable, the safer measure would be to exclude visitors altogether. If visitors are permitted, the kissing, feeding, or even handling of children by parents, should be forbidden—a measure more easily enacted than enforced. The visits of children should be denied.

A not unimportant source of infection, particularly in pertussis, seems to be the return of children from extra hospital quarantine while

still partially infected and still potentially infectious. We have seen such patients give rise to secondary cases.

The cleansing of hands, the wearing of a suitable gown usually suffices to prevent cross-infection, in so far as the resident physician is concerned. The more frequent changing of the nursing personnel makes a separate nursing assignment necessary, and only thorough and frequent instructions as to methods of transmission of disease will prevent accidental infection by the nurse whose duties require entrance into clean and observation wards as well.

Among the troublesome diseases which visit a children's hospital, vaginitis holds a high place. How shall we prevent infection and cross-infection with this disease? Our anwer is, quarantine as you would a contagion—separate wards; separate medical and nursing service; sterilization of laundry, before such soiled garments are brought in contact with soiled linen from the non-infected wards; the use of sanitary napkins, which are burned when soiled, to prevent, in so far as possible, cross-infection with a more virulent Neisserian strain; the requirement that every hospital receiving state aid shall open a suitable ward for the reception and treatment of this disease.

When contagion has entered our wards, the immediate removal of the infected patient to a hospital treating such cases is indicated; the immunization of all contacts in Klibs-Löffler infection; the removal of any case to secondary quarantine which shows any evidence of prodromal symptoms. Many times a quarantine can be more rapidly broken if patients in the ward or department are divided into groups, some of which will pass through the incubationary period without a secondary case. This method may avoid further, and possibly more virulent, exposure. It appears that an infective strain may gain virulency during a prolonged quarantine in which exposure follows exposure, and that a relatively immune child, due to changing virulence, or resistance, may finally be overwhelmed and contract the disease.

Finally, we must look to the practioner, whether he is doing dispensary or other charitable work, or whether he is referring patients from his own clientele, to furnish clear histories as to exposure, to explain the necessary transfer of infected patients to contagious hospitals, and, above all, to fully, personally, realize that any failure on his part to notify the hospital of contagious contact may mean preventable deaths, and preventable loss to both hospital and community.

SOME PUBLIC HEALTH ACTIVITIES IN NEW YORK

In the annual report of the Public Health Committee of the New York Academy of Medicine, the aim and work of which is to furnish authoritative and unbiased opinions on Public Health, Hospital Management, and Medical Education, its activities of the past year are described. Among the many important phases of Public Health work investigated was the dispensary situation in New York. The economics of these institutions, methods of administration and medical organization, service, facilities, and practices conducive to efficient functioning were described, and suggestions and recommendations formulated for improving the organization and functioning. A statement was prepared concerning the contagious disease hospital situation in the Bronx, and construction of this type of hospital urged. The committee endorsed the principle of the bill providing for the training of nurse attendants, and advocated the establishment of a Legislative Bureau to study the legislative measures passed pertaining to public health and medical practice. Active steps were taken by the committee to initiate legislation permitting a more extensive use of cadavers for postmortem examinations in the hospitals. Health Centers and convalescent treatment in hospitals were investigated, and a plan was drawn up for a study of the hospital situation in New York City.

Every man who is a first-rate something—as every man can be who is a man at all—has no right to be a fifth-rate something; for a fifth-rate something is no better than a first-rate nothing.— Holland.

SOUTH AMERICAN HOSPITAL SITUATION

As a result of the visit made by the president and secretary-general of the American College of Surgeons to Peru, Chile, Argentine, and Uruguay, authentic information and data concerning the medical and hospital field in South America have been made available. In the report on the trip by Franklin H. Martin, M.D., a brief description of the hospital situation in these countries is given.

The South Americans were found to be particularly alive to the requirements of the modern hospital, and to have equipped their institutions with the latest scientific apparatus. With but few exceptions, the hospital buildings were up to date, and the grounds surrounding the buildings particularly extensive and attractively planted. All modern conveniences, including working laboratories, x-ray outfits, approved sterilizing apparatus, conveniences for diagnostic purposes, outdoor dispensary departments, approved hydrotherapeutical departments, modern laundries and kitchens, provision for postmortems, up-to-date morgues, and well-equipped operating rooms have been installed in the majority of the hospitals. One of the hospitals referred to as being particularly beautiful and modern in equipment was the Modelo Instituto Clinica in Buenos Aires.

A few of the defects noted in hospitals were: an unorganized system of nursing; lack of screening against flies, mosquitoes, and other insects; and occasional bad plumbing. However, the South Americans are aware of these deficiencies and are taking active steps toward remedying them.

DENTAL CARE FOR WARD HOSPITAL PATIENTS

By L. A. SEXTON, M.D., Superintendent, Hartford Hospital, Hartford, Conn.

ONE of the greatest steps forward in the history of medical education dates from the wholesale investigation and classification of medical schools by Dr. Abraham Flexner of the Council on Medical Education, 1908-12. That was undoubtedly the awakening hour of the profession from a self-satisfied slumber that had cast its spell over it for many years. We now know just the class of work done by every medical school in the country.

With the disappearance of many poorly equipped medical schools and the raising of standards in those that remained, the profession has been benefited from whatever angle it may be viewed.

Following close on the heels of the proper classification of medical schools comes the much talked of classification of hospitals, which is already showing results. Now that several schools require medical students to spend a year in a "Class A Hospital" before conferring degrees upon them, the question comes quickly to all of us, "What constitutes a Class A Hospital, and in what class will our respective institution fall?" Realizing that sooner or later the class to which we belong is going to determine the class of men we have as interns, we all naturally hasten to put our houses in order by meeting the requirements, whatever they may be.

Now, with a precedent like this in the medical schools and hospitals of the country, who will gainsay that the dental schools are not due for a period of similar advancement?

The Dentist in the Hospital

Dentists have not been slow to avail themselves of the opportunities that have come to them. It is our opinion that they will gladly meet the medical profession and the hospitals of the country half way, and that the time will come when dental internships in general hospitals will be as much sought by the men who propose leading the dental profession as they are by the leaders in medicine and surgery. In this, the comparison between the dental surgeon who does not avail himself of these opportunities will be precisely the same as the medical man who goes into practice without a hospital training.

A well equipped corner in the dental department of Hartford Hospital, Hartford, Conn.

After long years of study and research for specific remedies for many ailments, the medical profession has turned to preventive medicine. Wisely so, for if we cannot find cures for these

conditions, the next best thing is to prevent the condition. In order to do this, we must have the cooperation of the Public Health physicians and nurses, the social service, the school nurse, the dental hygienist, and the dentists. There is no one in this group whose influence will be more felt in preventive medicine of the future than the dentist.

More and more as times goes on do we realize the wonderful opportunity offered the dental profession to render real service to humanity.

Dental Prophylaxis

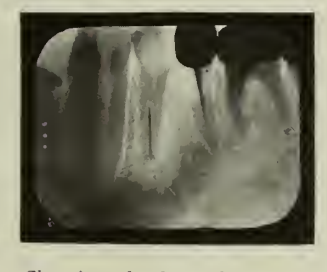
The importance of dental prophylaxis has long since passed the experimental stage.

It has been shown that numerous types of systemic disease are directly traceable to oral sepsis, and that of all chronic infections, those occurring at the roots of the teeth are the most common.

Chronic alocolar abscess at upper second molar.

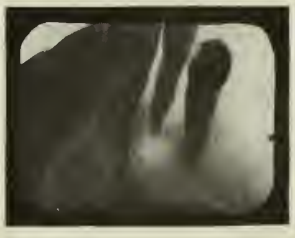
Chronic alocolar abscess at apex of upper bicuspid bridge abutment.

Chronic alocolar abscess at apex of upper lateral incisor with pyorrheal condition.



Chronic alocolar abscess at apices of lower bicuspid and molar.

Chronic abscess at apex of lower central incisor due to pulp in sound tooth.



Chronic abscess apex of lower biscupid.

We know that the constant forcing into the circulation of millions of pathological organisms by pressure on infected teeth is responsible, not directly alone for many types of infection, but indirectly by lowering the resistance of the individual, thereby increasing the susceptibility to other conditions which are in no way related to the primary cause.

Hospitals have been slow to realize these facts and to avail themselves of the services of attending dentists. This has not been true, however, of the far sighted directors of industry, as is attested by the fact that there are now sixty-one industrial plants in the United States who maintain their own dental dispensaries. If the heads of the various industries that are taking care of their employees' teeth have found it practicable and profitable, how much more should it benefit the sick man in the hospital who is probably suffering from some obscure condition, the cause of which may be a bad tooth. Like every other movement for the betterment of social conditions, this one is reflected not only by the improved conditions of the operatives themselves, but in their home conditions. There can be no doubt that with this campaign of education and prophylaxis will come better and healthier communities, and better dentistry.

It is very desirable for dental surgeons to have a medical degree in addition, but if this cannot be secured, the next best step is the dental internship in the general hospital. This brings the two professions together and not only gives the dentist the benefit and advantages of an association with a general medical and surgical staff, but also stimulates the physician to look beyond his own profession for a solution for many of his knotty problems.

Opportunity for Training

The introduction of the dental intern into the general hospital brings to us another valuable possibility, and that is the opportunity of additional training for our nurses who expect to go into public health work in any of its branches. Short, comprehensive courses can be easily introduced into the training schools and made a part

of the training of every nurse who expects to enter this work. This course should consist of a proper knowledge of the cleansing of the patient's mouth and teeth without going into the treatment of repair of any defects that may be found. Careful notes should be made, however, of any gingivitis, cavities, loose teeth, or pyorrhea, for the benefit of the attending physician.

An x-ray showing a complete fracture of both of the mandible at the mental foramen.

Gingival wiring of the upper to the lower occuding teeth after reduction of a complete fracture of both sides of the mandible at the mental foramen.

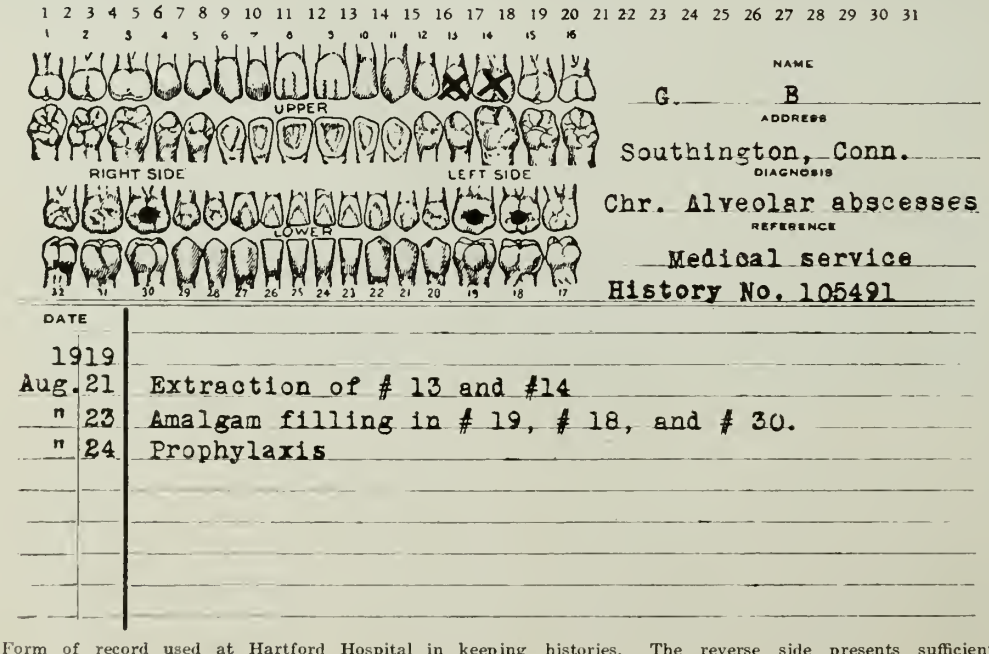
An acute abscessed condition shown at the apex of lower right impacted molar.

So far this work is elective in the Hartford Hospital Training School, but I feel that the time will come when every nurse leaving our training schools will have had the netcessary training to enable her to properly carry out her dental prophylaxis.

One of the first and most important steps (I may also say the most difficult) in the organization of a dental department in a general hospital, is securing the cooperation of the attending medical and surgical staff—not that they are antagonistic, but indifferent.

The medical profession for many years has looked upon the dentist as a matter of course, but that time has gone by and the sooner they wake up to the importance of referring their cases and consulting the dentist on every case where the diagnosis is obscure, the better it is going to be for the patient.

There is no reason why the ward patients in every general hospital should not have the advantage of routine dental examinations and dental care, if the management is sufficiently interested. Wherever there is a hospital, there are dentists who, if properly approached and made members of the attending staff, are just as


1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31
UPPER
RIGHT SIDE
LEFT SIDE
LOWER
NAME
G. B
ADDRESS
Southington, Conn.
DIAGNOSIS
Chr. Alveolar abscesses
REFERENCE
Medical service
History No. 105491
DATE
1919
Aug. 21 Extraction of # 13 and #14
" 23 Amalgam filling in # 19, # 18, and # 30.
" 24 Prophylaxis

Form of record used at Hartford Hospital in keeping histories. The reverse side presents sufficient blank space in which to record a vast amount of information relative to each case.

anxious to visit this class of patients and render the necessary service without charge, as are the physicians and surgeons.

This may not be true of the busy man who already has more work than he can do, but there are plenty of well trained younger men who would gladly be classed as a member of the attending staff of their local hospitals. If they will connect themselves with their respective hospitals and do the proper class of work among the ward patients, it will only be a short time before they will have the cooperation and influence of the physicians and surgeons with whom they are associated.

Cost of Equipment

The question of equipment is not a difficult or expensive one and the cost of supplies needed to carry on the work should not exceed one hundred dollars a year.

The equipment for such a department, like all other departments in a hospital, can be installed at a very reasonable figure, or it can be made to cost a great deal.

For the care of ward cases alone in a hospital of 500 beds, one chair is all that is needed. This one item is the most expensive of the entire equipment and can be had from $250 up.

The history card, which we have found most satisfactory, is a 4″x6″, with a diagram of the entire upper and lower denture, with right and left sides, numbered and so marked that there can be no mistake when these patients go to the x-ray department as to just what teeth are to be x-rayed. In addition to the diagram, the front of the card shows the patient's name, address, diagnosis, service referred from, and history number in this department corresponding with all other histories and records of the same patient. These cards are supplied by The Morgan Press, 206 North Calvert Street, Baltimore.

Duties of Intern

At the time this department was organized it was decided to limit the appointment of the intern to one year. At the end of the first year, however, the intern asked for a reappointment, which he is now serving. His duties are much the same as those of the other members of the house staff, except that his patients are dental and his work done under the supervision of the attending dental staff. He makes daily rounds with the attending physician on duty and they together decide what cases are to have dental care, and the nature of the work to be performed. In addition to the medical patients who require his services he has charge of all surgical cases of a dental nature.

In our work at the Hartford Hospital we have tried to impress all patients coming to this department with the importance of continuing their dental care and introducing it into their homes when they are discharged. Every ward patient whose physical condition will permit is given a routine dental examination. There is no charge made to ward patients for this service.

It is too early in the history of this department for us to realize the full importance of this work among ward patients, but we feel that it is a start in the right direction. The need for it is clearly indicated by the fact that during our first year approximately 3,500 patients were examined by this department, histories being kept of only those who accepted treatment. There were 519 operations for various conditions and 1,485 extractions.

FUNCTION OF HOSPITAL SHIPS DURING THE WAR

In a report on the part played by hospital ships during the war, Dr. Chevalier, general medical inspector of the Public Health and Marine Service, stated that these ships functioned exclusively as a means of evacuating the sick and wounded. They aided in transporting the wounded of the Belgian army and brought home 220,000 casuals from the various Mediterranean fronts in the east. While on the ships the men received excellent medical care. They were well fed and well quartered. The rocking of the boat proved only a slight disadvantage. It was even possible to do a great amount of surgical work; statistics show that one surgeon during thirty-nine days of hospitalization performed 155 major operations and treated 1,884 wounded; and another, in fifteen crossings, performed 968 operations, 300 of which were under general anesthesia. The ports of debarkation were advised in advance of the number of wounded aboard, and were prepared to meet the emergency.

PSYCHOLOGICAL ASSOCIATION MEETS

The seventy-sixth annual meeting of the American Psychological Association will be held June 1 to 4 at the Hotel Statler, Cleveland, O. The preliminary announcement of the program shows that the meetings will be devoted to discussion and reports of the recent accomplishment and problems met with in the psychiatric field. Administrative and State Problems, Mental Hygiene, Clinical Psychiatry, and Neuro-Pathology and Applied Topics, will be among subjects discussed, and Round Table Conferences will be a feature of the convention.

The organization announces the change of its name to the American Association of Psychiatrists.

OHIO HOSPITAL ASSOCIATION MEETS

The Fifth Annual Convention of the Ohio Hospital Association will be held on May 25-27 at the Hotel Deshler, Columbus, Ohio. The commercial exhibit of the Convention will be set up in Memorial Hall, Columbus.

DEVELOPMENT OF HOSPITAL PLANNING IN MILITARY HOSPITALS OF CANADA

By W. L. SYMONS, Architect for Military Hospitals, Canada

THE purpose of this article is to record the development of the erection and equipment of Military Hospitals, under the administration of the Military Hospitals Commission and the Public Works Department of Canada. The work of erecting and equipping the hospitals was, until April 1, 1918, entirely under the control of the former organization, but on that date this work was transferred to the Chief Architect's branch of the Public Works Department.

The Department of Militia and Defense, to which these buildings would be transferred on completion, and which was to assume the control and maintenance of same, appointed a special committee consisting of an expert in each branch of the medical and surgical service.

To this board of consultants were referred the plans for expert advice, and they acted in collaboration with the architects, and to this, no doubt, is due in a large measure the success attained.

Beginning as it did, with the caring for our boys in private houses, many of them generously loaned by the owners, the growth might be recorded as follows:

A—The remodeling of large dwellings, such as Oak Hill Military Hospital, St. Catharines, Ontario, and the Sir Sanford Fleming House, Ottawa, Ont.

B—The remodeling of schools, colleges, and other large public buildings, such as Queen's University, Kingston, Shaughnessey and Fairmount schools, Vancouver.

C—By additions to existing institutions, such as the asylum at Whitby, Ontario, and the Reformatory at Guelph, Ontario.

D—By the building of entirely new units capable of expansion, as, for example, at Camphill, Halifax, and Ste. Anne de Bellevue, P. Q.

It soon became evident that the work was fast outgrowing the policy of altering and adding to existing buildings. As the war dragged on into the third year and the devastation and toll in lives became very real, those entrusted with the work began to realize what a tremendous undertaking confronted them. New buildings with increased accommodation must be provided, and on short notice, buildings of permanent construction were out of the question. Then it was that the construction of semi-temporary buildings became the set policy. The type adopted had much to recommend it. It was economical, could be quickly built and easily altered and added to.

The first building of this type, and an entire unit, was built at Camphill, Halifax, N. S. (Fig. 1). It consisted of two ward buildings, each accommodating one hundred and fifty patients, together with a general service building.

The ward buildings were two stories high, providing for one ward of seventy-five beds on each floor. At one end of the ward was a connecting corridor, and adjacent to it were rooms for nurses, orderlies, toilets, and general utilities; at the other was a large solarium with a stairway leading from the first to the second floor. This arrangement of stairs was most workable,

Massage department in the Orthopedic Hospital, Toronto, Canada.

Hydrotherapy department, arm and leg baths, in the Orthopedic Hospital, Toronto, Canada.

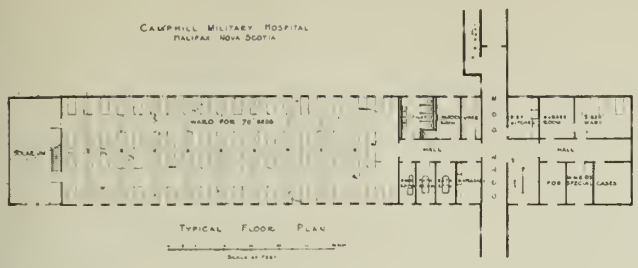


Figure 1. Typical floor plan of the Camphill Military Hospital, Halifax, Nova Scotia.

as it served to reduce the traffic, through the wards, and at the same time afforded quick and easy exit in case of fire. The solarium was invariably made a most attractive lounge room, thanks to the efforts of the ladies of the local societies. Suffice it to say that as a first attempt this type of building proved eminently satisfactory, so much so that duplicates were built at North Toronto and Winnipeg.

No sooner was this success attained, than the architect, always on the alert for improvements, began to plan adaptations of this ward unit. The first development was incorporated in the next group of ward buildings erected at Camphill (Fig. 2). Instead of the long ward, the floor space was divided into two self-contained wards, of thirty-seven beds each, with full complement of nurses' and utility rooms, while the connecting

Figure 2. Typical floor plan of the Military Hospital at Ste. Anne de Bellevue, P. Q., Canada.

corridor instead of being at one end, was made to connect the units midway in their length. The advantages were manifest. The smaller number of patients in a ward made for better discipline and efficiency generally. This second plan was followed in some of the new wards at Cobourg, Ont., and Ste. Anne de Bellevue, Que. While very compact and workable, even this plan was found to be capable of improvement, and a third development was adopted. The last change made for economy, but it is still an open question whether it did not possess disadvantages sufficient to outweigh this feature (Fig. 3). In this plan the nurses' and orderlies' room were left adjoining the ward, but all toilet and utility rooms were placed in a small separate building, a sort of enlargement of the through corridor. The chief improvement was in the farther removal from the wards of the odors from diet kitchen and toilets, but to offset this was the disadvantage of carrying the meals and other bed services. One important feature of all the larger groups was the general service building, containing the kitchens with all accessory rooms, and dining rooms. As these buildings represented much study, and also passed through several stages of development a short description might not be out of place. The first was erected at the Davisville Hospital in North Toronto (Fig. 4), and consisted of a large kitchen containing the necessary equipment for preparing and cooking the food, and washing and sterilizing the dishes. The only

X-ray department in the Orthopedic Hospital, Toronto, Canada.

additional rooms were for cold storage, and garbage disposal. The main dining room had a seating capacity equal to two-thirds of the total number of patients, and adjoining were separate dining rooms for nurses, orderlies, medical officers, and others.

At Fredericton and Ste. Anne de Bellevue this scheme was enlarged (Figs. 5 and 6). The main kitchen contained only the ranges and other cooking equipment, while the food preparation, the bakery, dishwashing, refrigeration, general stores, and garbage disposal had each a separate room, opening off the main kitchen. As may be seen on the detailed plans, the main kitchen is

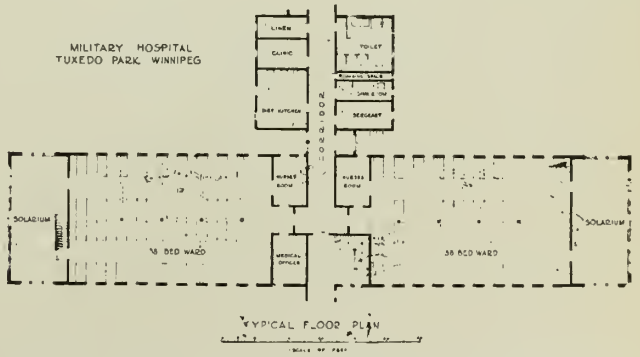


Figure 3. Typical floor plan of the Military Hospital, Tuxedo Park, Winnipeg, Canada.

lighted with clerestory windows which provide excellent light as well as ventilation. The working equipment throughout was of standard hotel heavy usage type, consisting of ranges, steam cookers, steam heated stock pots, steam tables, motor driven vegetable peelers, and food choppers, and in centers where the population exceeded 250 persons motor driven dishwashing machines were installed.

The necessity of feeding a large number of men in a short time gave rise to the introduction of the Cafeteria service. This innovation was first introduced at the discharge depots at Halifax and Quebec where all convalescents were cleared from inbound ships. As many as fifteen hundred patients were served at a single meal. The system worked so successfully here that it was thought wise to install it in some of the larger hospitals, such as Ste. Anne de Bellevue where as many as seven hundred patients were often served.

At the larger centers, refrigerating plants have been installed for cooling purposes and for the production of artificial ice. Also fully equipped steam laundries were provided, including steam sterilizers for bedding and clothing.

The development outlined in the planning of the ward pavilions and service buildings also occurred in regard to the accommodation required for the various branches of medical and surgical

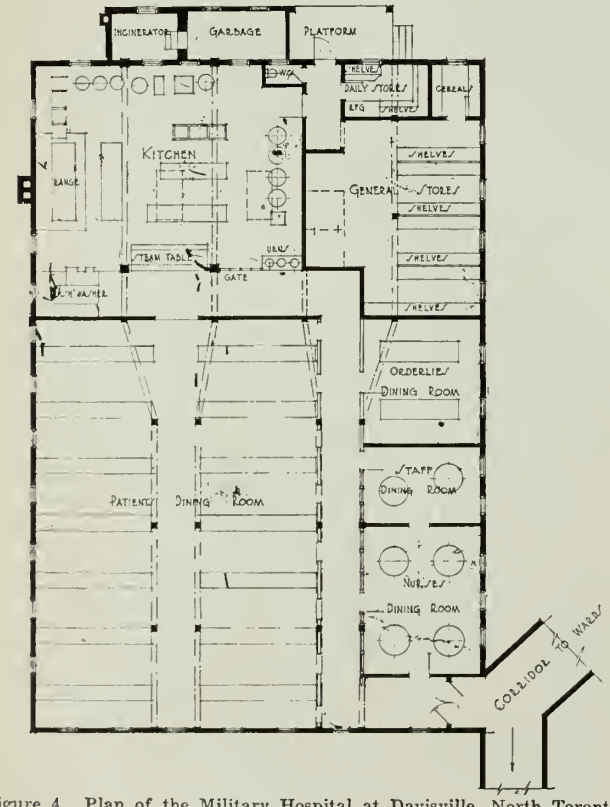


Figure 4. Plan of the Military Hospital at Davisville, North Toronto, Canada, showing the general arrangement of the dining rooms and kitchen.

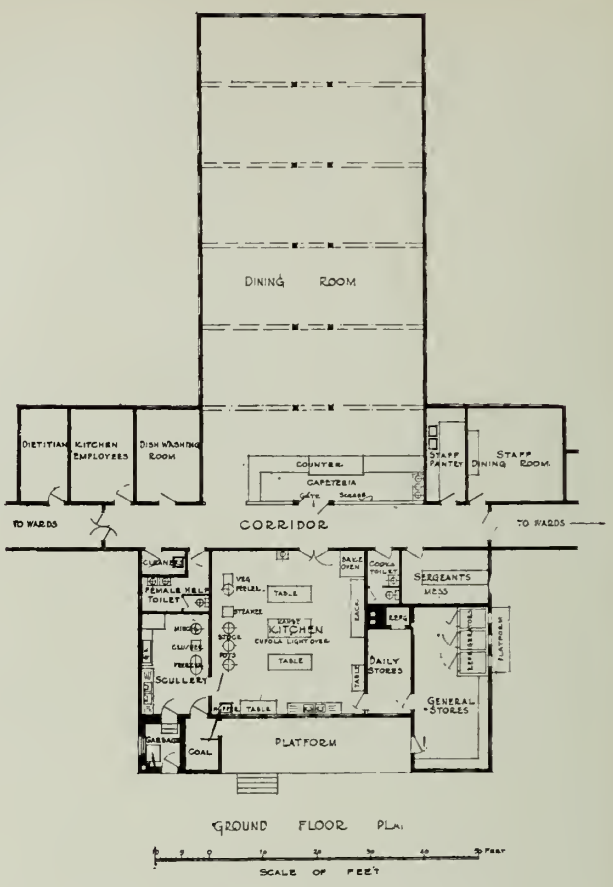


Figure 5. Ground floor plan of the Military Hospital at Fredericton, N. B., Canada.

work. As for instance—the laboratory department was originally housed in one room, but eventually the necessities of this department could only be met by the erection of a separate building. The same may be said of the accommodation for the dental service, x-ray, electrical treatment department, and massage department.

The requirements consequent on research in these departments were developed so rapidly and were of such importance that in each case special rooms and equipment were found necessary. Subsequently it was necessary to devote a building to the exclusive use of these departments.

Nor has the scientific equipment been neglected. On the contrary every department has been planned and outfitted along the most scientific lines known to the medical profession.

The surgical buildings contain, in addition to most up-to-date operating rooms, all the complementary rooms, such as preparation, sterilizing, and x-ray. There are also the necessary provisions for the treatment of nose, ear and throat cases, as well as up-to-date dental suites. One of the most interesting features is the hydrotherapy department with its full complement of electrical, continuous hot and cold water, and arm and leg baths. These rooms are immaculate in white tile, marble, and white enamel paint, and the

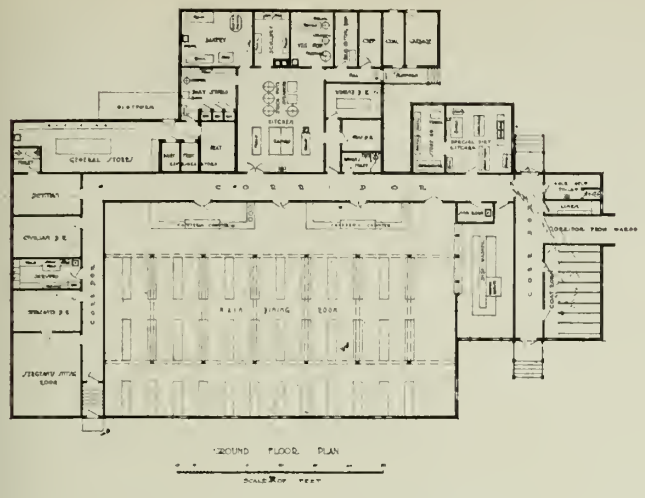


Figure 6. Ground floor plan of the Military Convalescent Hospital at Ste. Anne de Bellevue, P. Q., Canada.

equipment is the best that science has produced.

Not the least interesting phase of the designing of these hospitals has been the grouping of the buildings. Every site, of course, presented its own problems, and the study given to the block plan has contributed in no small degree to the successful working out of the scheme. From the illustrations (Figs. 7, 8, 9, 10, 11, 12, 13, and 14) it will be noted that no two are alike or even similar, while they all embody the same general requirements.

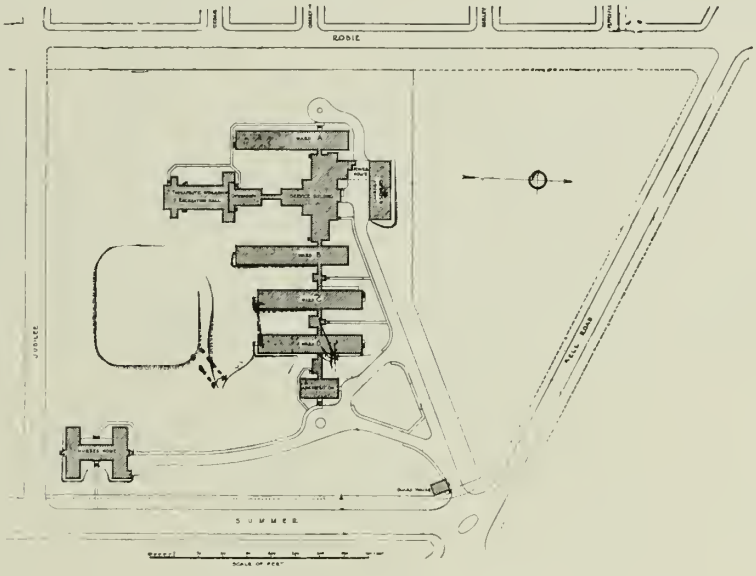


Figure 7. Block plan of the Camphill Military Hospital, Halifax, Nova Scotia.

There is the main approach, which in most cases is the guard house. Then the administration building, around which the others are grouped, and in which accommodations are provided for the officer commanding, and his staff, the matron, burser, and others. The service building contains the kitchen and dining rooms, and the required number of ward buildings. The several units of this main group are all connected by corridors or covered ways. Around this, conveniently placed on the site, are the homes for nurses, orderlies, medical officers, and at the larger centers a recreation building, a vocational training building, and an infectious hospital.

As our readers can readily realize, one big problem in our climate was that of heating, and the manner in which that problem has been overcome is one of the noteworthy features of these institutions. The buildings are heated by steam, supplied through tunnels from a central heating plant. To solve the fuel supply question an effort was always made to locate on or close to a railway siding. The most unique case is St. Anne de Bellevue where the tracks are laid over the coal bunkers. Then, too, there were other engineering problems. If the hospital was located within or adjacent to a municipality having all the public utilities the question of water, light, sewage disposal, etc., were simple; otherwise, private systems had to be installed in connection with the central heating plant.

The esthetic has not been overlooked in the attempt to secure the best results. The most possible has been made of the simple materials used, and much has been learned in connection with this important subject. The color scheme in general use is as follows: In the wards the main walls are a light buff, with dado a deep buff, and cream ceiling. In the utility rooms the woodwork and walls are finished in dead white enamel, while the nurses' rooms are treated with various shades of sage green, light delf blues and other soft colors. The kitchens and service rooms are finished in flat cream white, and dining rooms, generally in tones of sage green and brown. The various departmental

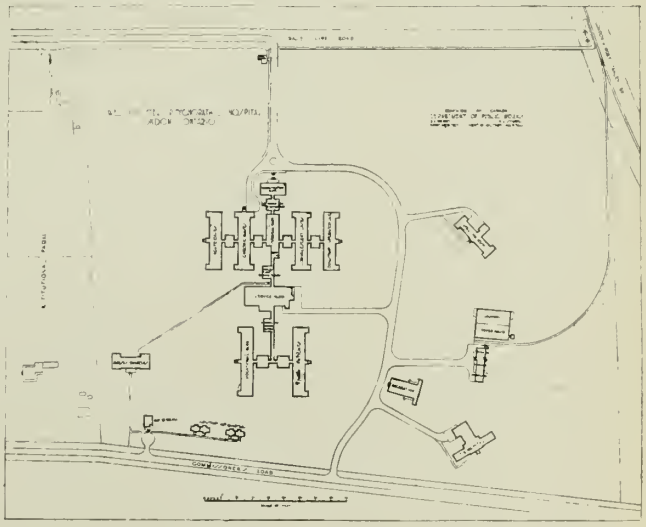


Figure 9. This illustration shows block plan of the Westminster Psychopathic Hospital, London, Ontario, Canada.

rooms—such as operating suites, etc., also received very careful consideration and universal results were obtained in many instances.

The buildings erected at London for psychiatric work deserve a passing note. As this institution was to be permanent a greater efficiency in planning was aimed at, and the plans evolved were architects were in constant advice with experts in orthopedic work; the plan thus evolved will prove of interest to those specializing in orthopedic work.

Besides the special accommodation for psychiatric work at London and the orthopedic work at the Dominion Orthopedic Hospital in Toronto,

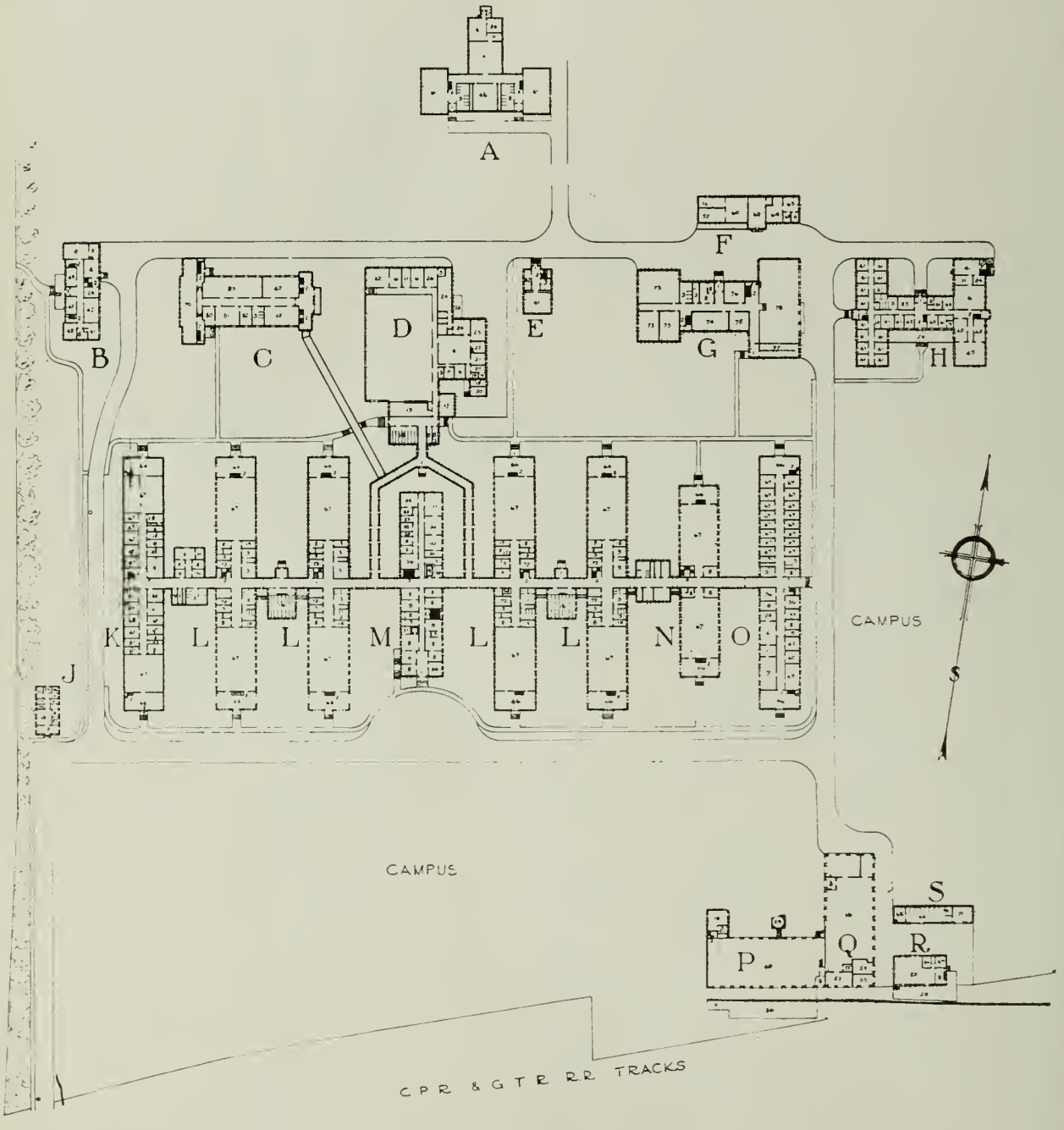


Figure 8. Block plan of the Millitary Hospital at Ste. Anne de Bellevue, P. Q., Canada.

made as the result of consultation with experts.

The Dominion Orthopedic Hospital in Toronto is also regarded as a permanent institution. The orthopedic cases not only receive treatment, whether surgical, electric, or massage, but all appliances requisite for each patient are made here. In planning the main hospital building the accommodation was also provided at Ste. Anne de Bellevue for oral and facial cases.

The building required for the care of the tuberculosis patients calls for a separate article, but it may be mentioned in passing that accommodation for over 1,000 patients was erected by this department exclusive of the additional buildings

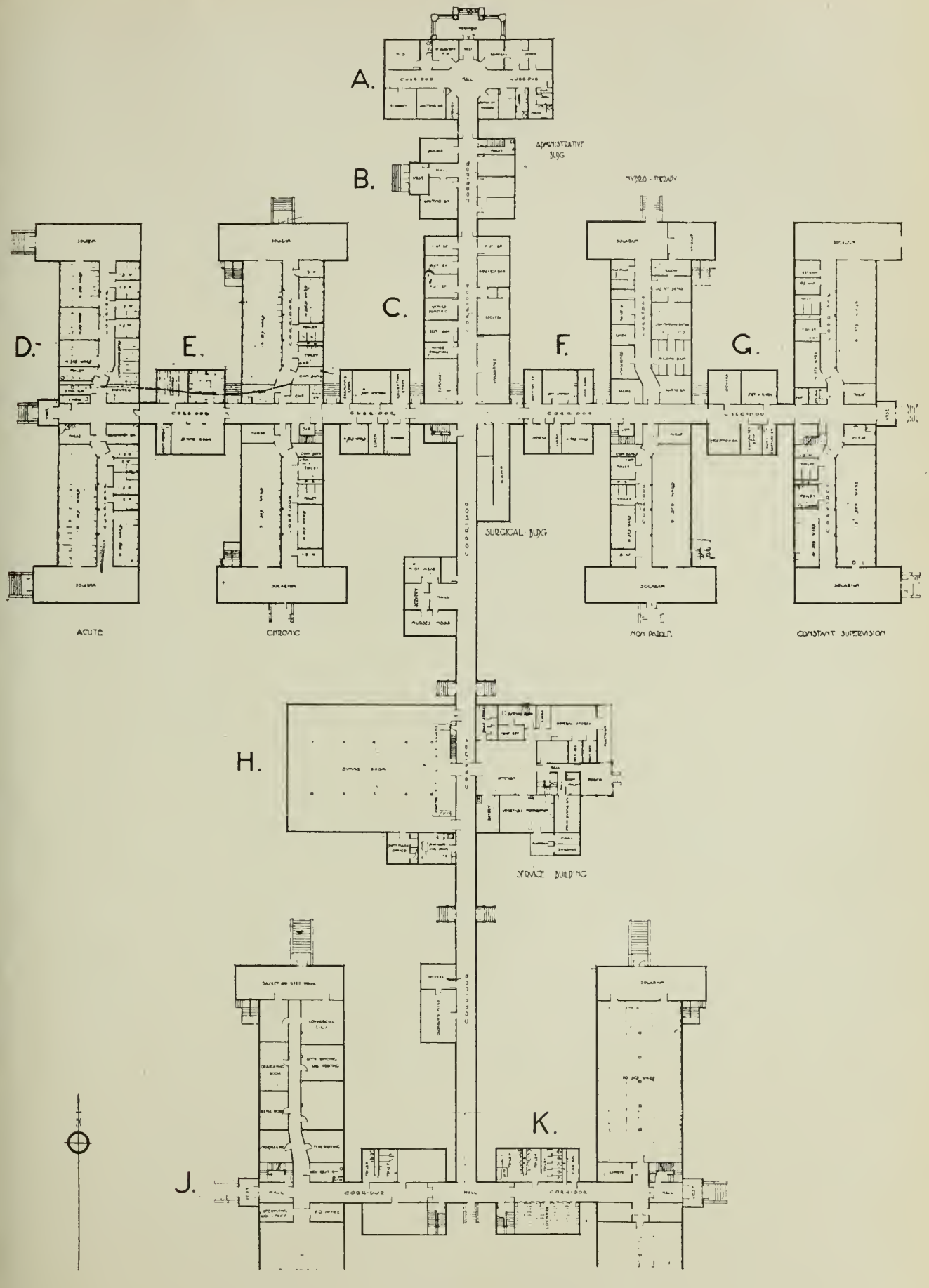


Figure 10. First floor plan of the Psychopathic Hospital, London, Ontario, Canada.

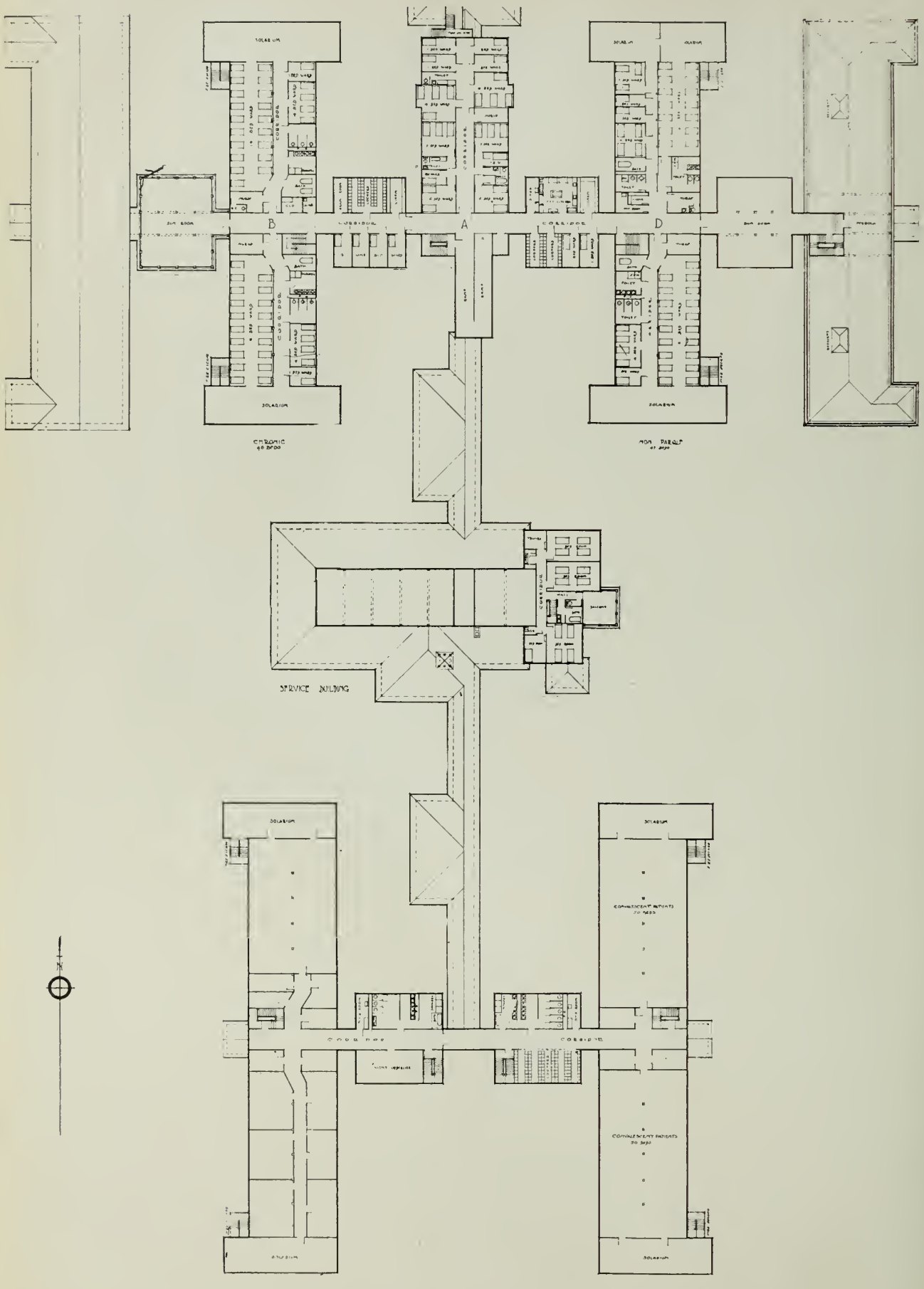


Figure 11. Second floor plan of the Psychopathic Hospital, London, Ontario, Canada

erected in connection with the Provincial Sanatoria.

It may be noted that the military hospital work in Canada was a problem of its own, and very little assistance in its development could be obtained by studying the buildings in France or England. The Americans were too late in the war to be of any service in this respect; they developed a one-story hospital scheme, but later realized that two-story buildings were more

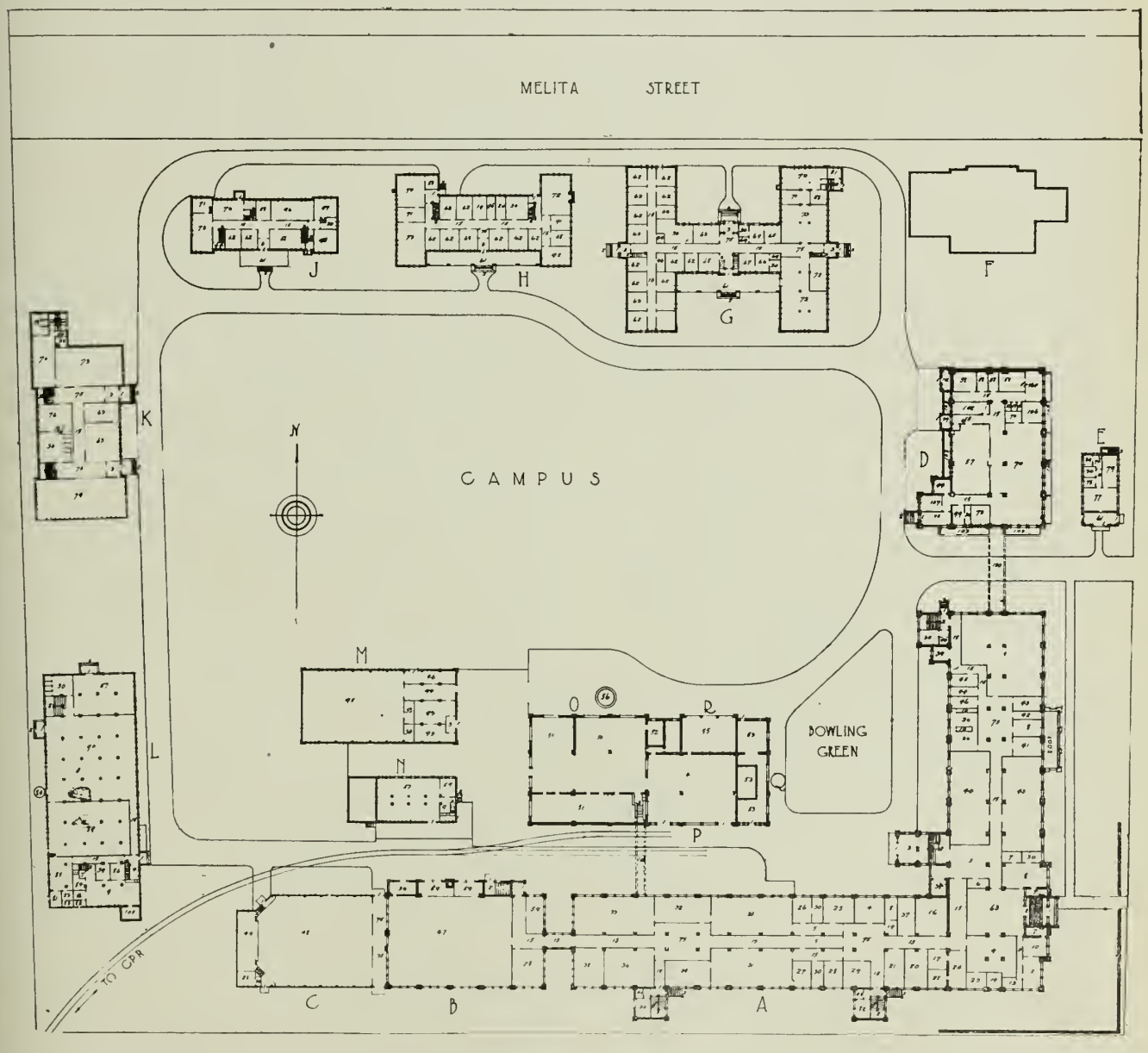


Figure 12. Block plan of the Dominion Orthopedic Hospital, Toronto, Canada.

adaptable on account of advantages of administration, maintenance, and cost of erection. In Canada the first pavilions erected were two stories, and this scheme was carried out through the entire war time, the original plans only being altered from time to time as new requirements demanded.

The cost of the buildings per patient bed in the hospital was approximately $1,650.00—in this cost being included the pro rata portion of all buildings on the campus, and all utilities such as heat, light and water service, and also grading, road making, and fencing.

The cost of the hospital at London, on account of being of more permanent construction was about $2,500.00 per bed.

In regard to the cubic contents of the wards per bed, an average of 650 cubic feet per patient at least was maintained at all centers, and a window surface of 25 per cent the total wall space in each ward.

Some idea of the extent of the program of the military hospital's work may be obtained when it is realized that about $18,000,000.00 has been spent by the government in this work. The bulk of the buildings were erected and equipped in

the space of eighteen months' time, and this work was carried on in over eighty different hospital centers in cities and towns throughout the Dominion.

How Experiences Gained in the Erection of Military Hospitals Can Be Used in the Erection of Civic Hospitals

Some of the experiences learned during the erection of the war time hospitals, especially in connection with the planning of the various departments, are worthy of note. One of the most outstanding was the constant change in the plans necessitated by the wonderful developments made during the war in all branches of hospital work. This was very noticeable in the x-ray and electrical treatment departments, and the hydrotherapy and massage departments, and was equally noticeable in the application of the work of these branches to psychiatric work, and in a lesser extent to that for tuberculosis treatment.

The development in providing for the housing and treatment of infectious diseases should prove very interesting, and also that for the venereal hospitals, which were almost unknown before this time, and consequently may be termed a war product.

The application of vocational training to mental and tubercular patients has necessitated the setting apart of considerable space for this important work. In some cases separate buildings were erected. The provision of special gymnasia in connection with orthopedic hospitals has opened up an entirely new study.

The question arises, therefore, how far it is desirable to erect expensive buildings—such as five and six stories, fire-proofed—in view of the fact that the requirements in the various departments are far from being standardized, and even the simple question of ward planning is still much discussed among medical men. Some leading doctors here recommend the erection of two or three-story buildings of slow burning construction, so planned as to be easily and quickly altered to suit important changes required by the rapid development taking place all along the lines. Take two instances alone—the planning and equipping of mental hospitals and tubercular sanatoriums built even ten years ago, are totally unsuitable for present day work and treatment. In many instances satisfactory results cannot be obtained by reason of the unsuitability of the buildings for carrying on modern methods. The administrators of these hospitals are constantly and seriously reminded of their inability to carry out the alterations desired by their medical advisers to keep up with new methods, on account of the initial cost of the original buildings which in most cases still bears heavily on them. These buildings, however carefully planned at the time of erection, necessitate costly alterations soon afterwards.

Another lesson learned from the erection of the military hospitals in Canada has been the suitability of two-story and basement buildings for hospital work of all kinds. The low cost of $1,650 per bed for heavy wood construction, and $2,300 per bed for slow burning construction buildings (this is war time cost) combined with the ease and cost of administration if the buildings are properly placed in relation to each other—and the total immunity from loss by fire either to the buildings or patients (not one life being lost or one dollar of dam-

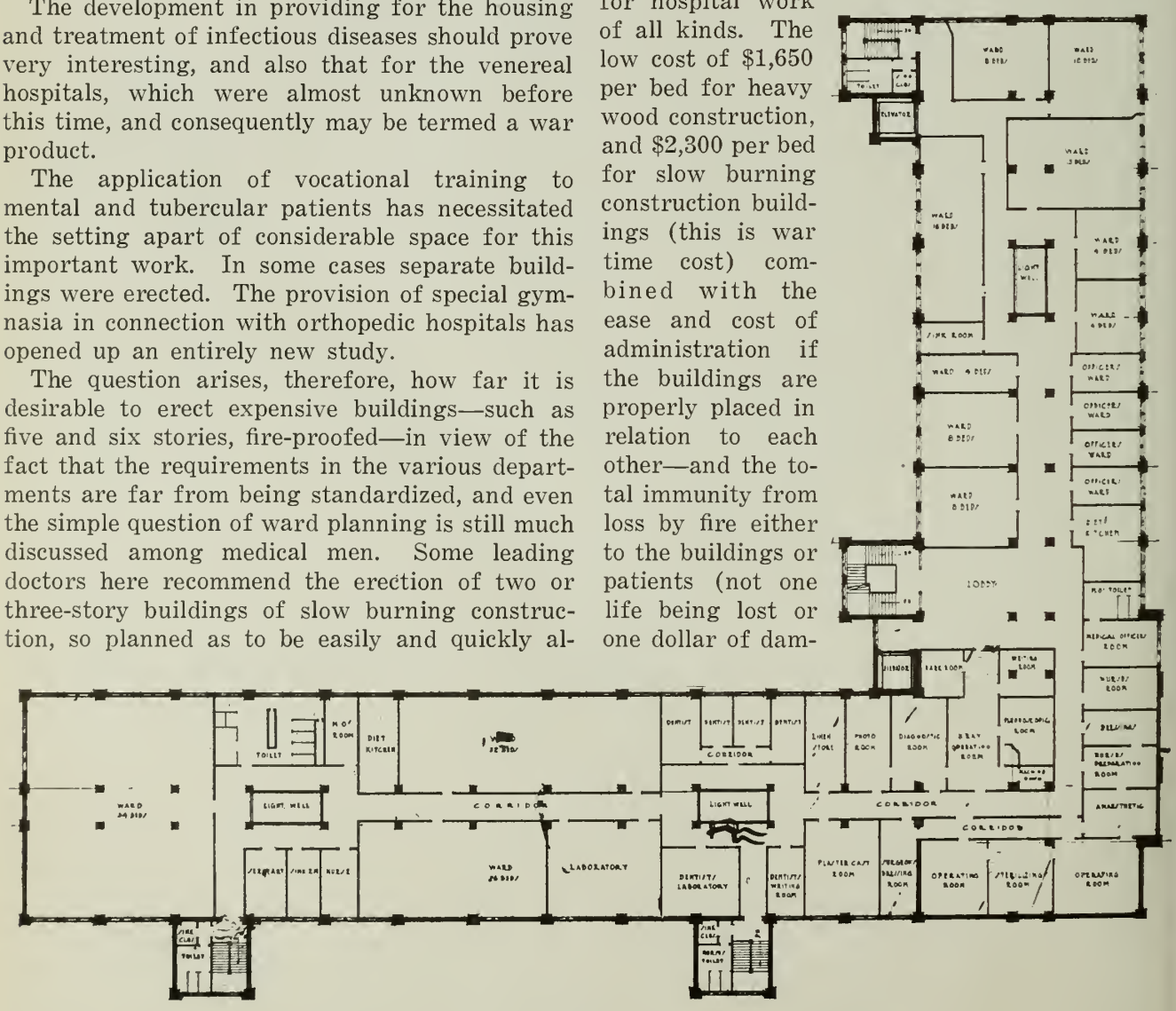


Figure 13. Fourth floor plan of the Dominion Orthopedic Hospital, Toronto, Canada.

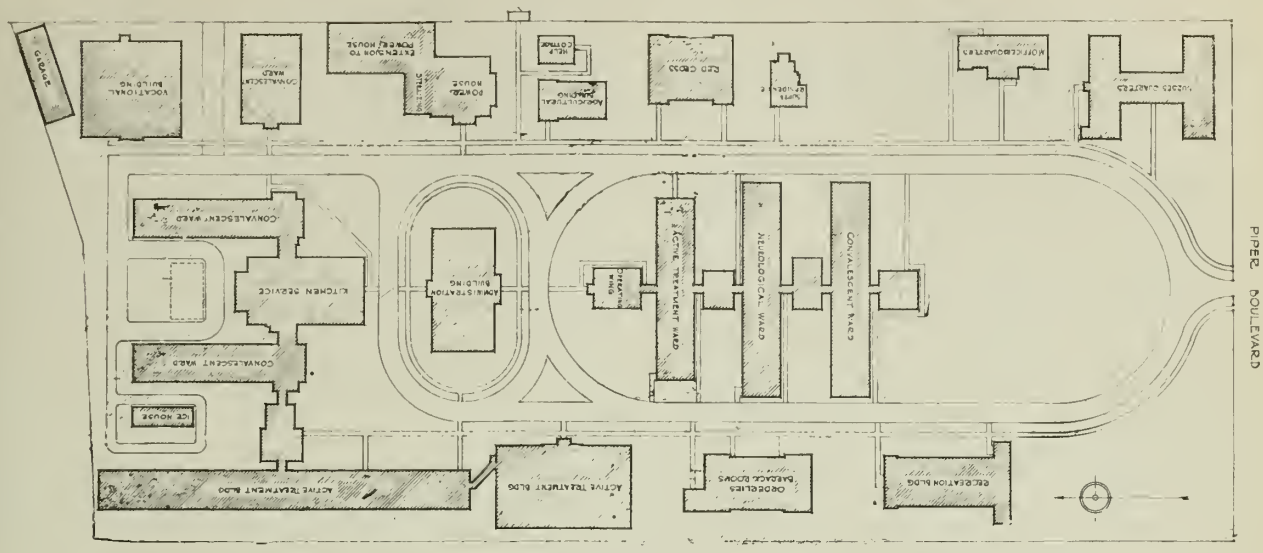


Figure 14. Block plan of the Military Hospital, Tuxedo Park, Winnipeg.

age done by fire during all the years these hospital units have been in operation) are serious arguments in favor of large acreage for hospital sites and two or three story buildings.

All this should have considerable effect on future civic hospital planning and equipping. In view of the fact that the military hospitals were erected, equipped, and maintained out of government monies and were thus not dependent upon civic or personal donations, an advantage was taken of this fact (especially as regards equipment) to have the best that scientific research could demand or genius design for the aid and recovery of this great and unusual number of patients. Standards have been created that both as regards planning and equipping must now be lived up to.

Very little loss, if any, will ensue in Canada chargeable against the expenditure for military hospitals, as most of the buildings have been erected on permanent foundations and in such a manner as to admit of a future exterior facing of stone or brick to the upper stories.

Some hospital centers will be turned into military hospitals and barracks for the permanent force; others will be taken over for special work, such as mental hospitals for women and children; but the planning, construction and equipment will demand that they be utilized for some good service.

Canadian citizens are grateful to those in charge to find that "after the smoke of battle," they have such an asset that may be utilized for the needs of the times in the military hospitals erected by the public works department of the Dominion of Canada.

Ambition scarce produces any evil but when it reigns in cruel and savage bosoms.—Fielding.

COMBATING CANCER

The recent contribution by Prof. Alexander Fraenkel, secretary of the Austrian Society for Combating Cancer,[1] is commented on in the December 20 issue of *The Lancet.*

Dr. Fraenkel sets out clearly and in detail the pathological facts of human and animal cancer and the results of experimental study of the disease. Due prominence is given to the part played by chronic irritation and the great variety of forms which this factor may take, ranging from chemical irritants to gross Metazoan parasites, such as Bilharzia and the Spiroptera found by the Danish investigator, Fibiger, associated with cancer of the stomach in rats. Fraenkel regards this variety in origin as practically excluding a parasitic etiology of cancer, and he goes on to remark acutely that the same variety in the predisposing factors renders any attempt at a specific cancer prophylaxis nugatory, apart from a general improvement in the prevention of all diseases.

The rare cases of spontaneous cure of cancer, and the more numerous instances of success after incomplete operations, are regarded as of the most happy augury for success in the ultimate triumph of a rational therapy. Early and complete removal is emphasized as still the most successful method of treatment, full recognition being given at the same time to the brilliant results of radiotherapy in suitable cases. Fraenkel then goes on to an account of the chemo-therapeutic experiments of von Wassermann and others, emphasizing the necessity of improved methods of diagnosis early in the disease and of research in this direction.

The article concludes with a severe indictment of the extravagant claims of Adamkiewicz to have produced a practically infallible cure with his cancroin, the soluble toxin of a supposed protozoan parasite of cancer. The danger to the credulous public from such irresponsible claims is not less in other countries than in Austria and, shorn of its verbose and florid style, an article conceived on similar lines and circulated broadcast might do something to put down the raising false hopes by interested people, and to encourage the efforts of those who, without hope of material reward, are seeking the solution of one of the most fascinating as well as one of the most serious problems in medicine.

1. Ueber die Heilbarkeit der Krebskrankheit, Wien. klin. Wehnsehr, November 13, 1919.

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LACK OF HOSPITAL LIBRARY A SERIOUS HANDICAP

One of the serious handicaps under which the hospitals of America have labored for many a year has been the absence of any Central Hospital Library and Service Bureau to which they could appeal when in need of information or guidance. A few superintendents, to be sure, have, in the course of years, collected small libraries and special indexes of hospital literature to meet their own needs; but there is no large central library of this literature accessible to the general public. There is no place to which hospital superintendents, members of building committees, and architects can turn to find a complete special index of published information regarding hospitals and allied institutions. There is, moreover, no extensive collection of plans and specifications of these institutions, or lists of equipment based on their actual operation.

That such a library and service bureau would be of inestimable value and fill a long felt need is evident from the steady stream of questions that flows into the offices of the American Hospital Association, The Modern Hospital Publishing Company, the American College of Surgeons, the American Association of Industrial Physicians and Surgeons, the Russell Sage Foundation and the offices of the more prominent hospital superintendents. The questions are asked by those who are interested in, and responsible for, the seven thousand hospitals, more or less, now in existence in this country and for the hospitals that are constantly being erected.

Such a library would centralize and make readily accessible the rapidly growing literature on hospitals. At present this literature is fragmentary and scattered. It lies buried in the literature of medicine, architecture, engineering, business administration and other fields. From these sources it must be culled, collected and classified for use.

Such a library and service bureau would be the means of saving large sums of money by making the accumulated experience of the years readily available to all who chose to avail themselves of it. At present the lack of such a library and service bureau makes it exceedingly difficult, and at times almost impossible, to utilize past experience. Those who are responsible for new hospital projects often resort to the expedient of traveling at considerable outlay of time and money from city to city inspecting existing hospitals only to find their minds confused rather than clarified. This procedure often results in frequent changes at great expense, after contracts have been let and the work commenced. Not infrequently it results in the incorporation of unique rather than soundly serviceable features—features that have not stood the test of time and often are not adapted to the needs of the new institution under consideration.

Such a library and service bureau would tend to insure the construction of hospitals more nearly suited to the needs they are intended to meet whether those needs be the care of patients, the education of doctors and nurses, or the prevention of disease. Floor space and service facilities would be more economically and wisely arranged, unnecessary features both in construction and equipment would be eliminated, and the right material used in the right place.

What the establishment of such a central library would mean in the way of the more efficient care of the sick and the saving of hundreds of thousands of dollars now squandered on poorly located, poorly equipped, and poorly managed hospitals, can scarcely be conceived. In the decade 1901 to 1910, two thousand forty-seven medical institutions were erected in the United States according to Polk's "Medical Register and Directory" (11th ed. 1910). This is almost double the number of medical institutions that were established in the decade preceding, 1891 to 1900. In the decade 1910 to 1920 an additional four thousand hospitals were probably erected,

making a total of about seven thousand medical institutions in existence in 1920. This gives one some conception of the extent of hospital construction, the capital invested, and the amount of hospital work being done. The magnitude and growing importance of the field, no one can deny, and it is high time that some central library and service bureau such as is here suggested were called into existence. Happily, there is reason to believe that one will shortly be established.

EDUCATIONAL OPPORTUNITIES OF ARMY MEDICAL DEPARTMENT

In addition to the performance of his regular military duties, every man who now enlists in the army has the opportunity to continue his education and vocational training. This is a feature of army administration which has grown out of the World War. That war, as Col. Henry F. Pipes, M.C., U. S. A., puts it in his article on The Training Opportunities in the Medical Department, U. S. A., brought about "the establishment of a more intimate relationship between the military machine and its enlisted personnel and an appreciation on the part of the officials that the army must train men not only in their military duties but along lines of benefit to themselves, and the country at large." These opportunities for training are available no less to men who enlist in the medical department in the army than to those who enlist in any other department.

The general plan provides for vocational instruction in sixty-seven essential and forty-seven less essential subjects grouped under seventeen departments. It is not, of course, intended to give all of the courses at each camp or post. The courses to be given at the various camps will depend largely upon the character of the camps and their facilities. At Camp Vail, New Jersey, for example, where the training school of the signal corps is located, courses in electrical subjects will be established, while at Camp Holabird, Maryland, the training camp of the motor transport corps, subjects relating to the automobile and other gas engines will be taught. At divisional camps a greater variety of subjects will be available.

Soldiers taking vocational training will be encouraged to take related educational courses. At the completion of these courses, they will receive a certificate from their local commanding officer indicating their satisfactory completions. Ultimately when the courses have been placed on a plane comparable to the best courses to be had in civil life, the war department plans to adopt a standard certificate for the entire service. The conditions under which these certificates are to be issued will be such that any discharged soldier bearing a certificate showing that he has qualified for a particular occupation will, as Dr. Pipes puts it, "need no further proof either of character or proficiency when seeking civil employment."

While the training program of the Medical Department of the Army has not as yet been fully perfected, steady progress is being made. Those who are interested in looking over the list of the courses of instruction are referred to Dr. Pipes' article. Particular attention, however, is called to the special courses in bacteriology, pathology, and radiography which may be had by qualified men at the Army Medical School, Washington, D. C.

PLANNING THE DIETARY DEPARTMENT

That which may or should be required of a dietitian in a hospital or other institution, and the training she should have to meet these requirements, are subjects that are being much discussed by dietitians and other hospital executives. Many and varied are the suggestions offered.

At the present time and for months past many institutions of many kinds have been wanting to secure dietitians, but none were available, or at least not nearly enough to supply the demand. In a few weeks the schools of the country will be releasing large numbers of young women who have completed a course in Home Economics. All too frequently the system, if it may be called a system, of adapting these numerous graduates to the work of a dietitian has been something as follows: The superintendent of the hospital writes to the head of the Home Economics Department of some school with which he is more or less familiar, asking her to send him a dietitian. She puts him in communication with some member of her senior class who may be chosen because of her interest in dietetics, or because she seems to rank above the average in common sense or judgment, or because of her lack of promise as a teacher, or for some other equally irrevelant reason. Very seldom does the superintendent make an effort to inform himself on the type of training given at that particular school; neither does the head of the school investigate conditions in that particular hospital, or find out its standards. Both of these people will say they are "too busy"—that inevitable excuse for failing to do a thing right. Is there any one in the hospital or college world who is doing a worth while piece of work who is not very busy? Does not the above mentioned haphazard method often result in a difficult situation which requires much more time to adjust than would have been required to

go about it intelligently in the first place.

Will it not be worth while to give a little thought to the plan for your dietary department next year, planning what may be done, and the best way of doing it? In the not very distant future, a hospital with a badly managed dietary department will be out of date and in disrepute.

The papers published this month in the Department of Dietetics and Industrial Food Service, pp. 393, have been selected with the purpose of presenting the possibilities and point of view of at least one college instructor of dietetics, one hospital dietitian, one medical man doing scientific work, and one medical practitioner.

ACQUAINTING FOREIGN BORN WITH HOSPITALS

One of the interesting features of the financial campaign conducted by the United Hospital Fund of New York City recently was the circulation among foreign born of leaflets of instruction relative to the location of their nearest hospitals, and the method of calling for an ambulance in instances of accident and serious illness. This educational campaign grew out of a representation made by the American inter-racial division of the fund showing that 90 per cent of New York's foreign born people did not know that free hospital service is open to them.

Does not this educational campaign contain a pregnant suggestion for hospitals of other communities having a high percentage of foreign born people among their citizenship? The situation in New York is indicative, broadly speaking, of the situation in Chicago, Philadelphia, Boston, Cleveland, and Detroit (to name the five cities other than New York having the highest ratio of foreign born people to the general population), unless these communities have already taken steps to bring their hospital facilities to the attention of the foreign born within their borders.

The character and intensity of such an educa-

NEW BRITISH AMBASSADOR A PHYSICIAN

SIR AUCKLAND GEDDES, M.D.

SIR AUCKLAND GEDDES, recently appointed British Ambassador to the United States, is a physician with the rank of cabinet minister. Sir Auckland received his degree of Doctor of Medicine at Edinburgh, where he studied under Sir William Turner. During the period of his incumbency of the chair of anatomy to the Royal College of Surgeons of Ireland he made a number of contributions to the literature of anatomy and embryology. In 1913 he was appointed professor of anatomy at McGill University, Montreal, from which post he resigned to enter military service during the war. He became minister of national service. His election to Parliament from Hampshire was followed by his appointment to the ministry of reconstruction. As President of the Local Government Board he was instrumental in the passage of the Act creating the Ministry of Health.

In April, 1919, he was made principal of McGill University, but did not assume this office on account of his subsequent appointment as president of the Board of Trade. As ambassador to the United States he brings to that post the training and mental habits of a physician. He has exhibited an active interest in matters pertaining to medical education and his views in regard to the medical profession are set forth in his recently published volume of "Contributions to Medical and Biological Research."

tional campaign would, of course, have to be adapted to the various foreign born groups. Recent studies clearly show a marked variation in the use of hospitals by the different race groups. The Jewish people probably use the hospitals two or three times as much, relatively to the population, as a recently immigrated Slavik group. Broadly speaking, whatever is true of the race group as a whole is true of the foreign born members of this group, the foreign born, if anything, showing a greater tendency not to use hospital facilities. If the use of hospital facilities is desirable for the American born citizen, is it not equally desirable for the foreign born and is it not incumbent upon our larger centers of foreign population to see that none are ignorant of the available hospital facilities? Their more extensive use by the foreign born will unquestionably make for sounder and healthier communities.

NEW YORK BILL PROVIDES NETWORK OF HEALTH CENTERS

On page 382 we print a memorandum dealing with the provisions of a bill recently introduced in the Legislature of the State of New York, to amend the Public Health law of that state, so as to provide for residents of rural districts, industrial workers, and all others who cannot otherwise secure such benefits, adequate scientific medical and surgical treatment, hospital and dispensary facilities, and nursing care; to assist local medical practitioners; and in general to improve the health of the state by authorizing a county, city, or consolidated health district to create and maintain one or more health centers. The bill provides for state aid necessary to carry out its provisions.

This bill embodies one of the most advanced and almost revolutionary moves made by any state to protect and promote the health of its citizens. If it actually becomes law, it will place New York State at the forefront in public health work. The bill takes cognizance of one or two outstanding facts in the social life of today. It recognizes, first of all, that, while medical science has made extraordinary advance during the past twenty-five years, the benefits resulting therefrom are available only to a small fraction of the population; and in the second place, that while this great advance in medical science is in progress, the conditions of medical practice in many small cities and in the rural districts quite generally, are changing for the worse, due to decrease in the number of physicians taking up practice in rural districts and the growing lack of trained nurses and domestic servants, making the adequate care of the sick, particularly in the home, increasingly difficult, and often impossible. In the face of these facts, some fairly radical steps are called for. Those who sponsor the bill contend that its enactment and the establishment of the health centers provided for therein would "greatly aid in the coordination of the public health activities of the district; would prevent overlapping of effort, promote economy in administration and make possible the extension of an efficient health service to every portion of the district."

THE CONTRIBUTION OF THE HOSPITAL TO THE SURGERY OF TODAY

Emphasis is laid by Dr. Jasper Halpenny on the responsibility of the board of trustees for knowing that the man who proposes to operate in the hospital is competent to operate. The hospital board should also insist on a complete record being kept in the record room. "The staff should include thoroughly trained nurses and also sufficient clerical staff to insure the proper keeping of records. For purposes of having the actual steps of the operations recorded and to save the surgeon's time, the hospital should provide some one to take notes on the operation, or should have a dictaphone in a nearby room for the use of the operator when the case is finished."

Dr. Halpenny believes that the hospital not connected with a medical school is not thereby excused from being a teaching center.

"One of the weaknesses in the practice of surgery is that men tend to become stationary and call it standardizing their work. A surgical research department in a hospital would save the surgeons from becoming fossilized.

"This surgical research department does not need to be extensive, nor yet expensive. It should provide facilities for doing entirely new work or for repeating work reported from other laboratories. It would provide an opportunity to test out different surgical procedures and to become proficient in them.

The direct preparation for surgery, in Dr. Halpenny's opinion, should begin after graduation. The very high regard that a surgeon has for living tissue can not be harmed, moreover, by working on dead tissue.

"After finishing the academic term, no student should be given a license, and possibly not a degree, until he or she had served at least one and better two years' residence in an approved hospital. All students, irrespective of whatever specialty they may intend to follow, should have this general training in a hospital. (For men who have got thus far at a fairly early age, say twenty-three or twenty-four, two or three years spent in general practice would be of great value to the surgeon-to-be.)

"At this stage a man who wishes to be a surgeon should begin to get the special training necessary to equip him, but not before, as resident surgeon in some well organized teaching hospital, or associate himself with some surgeon of wide experience and good judgment for an equal length of time. Many young men would most gladly spend this amount of time in a hospital if a fair stipend were offered. Safe it is to say that for the second year's residence in hospital, the intern would be content with even the pay of the operating room orderly. The young man who is willing to spend all these years in training for highly specialized service for the public, is surely entitled to some financial remuneration during the last years of his training, which years, be it remembered, are full of service to the people."

MEMORANDUM ON THE NEW YORK HEALTH CENTER BILL*

MEMORANDUM as to the provision of a bill authorizing a county, city, or consolidated health district to create and maintain one or more health centers and providing state aid therefor.

Purposes of the Bill

(1) To provide for the residents of rural districts, for industrial workers, and all others in need of such service, scientific medical and surgical treatment, hospital and dispensary facilities and nursing care, at a cost within their means or, if necessary, free.

(2) To assist the local medical practitioners by providing: (a) Facilities for accurate diagnosis by a coordinated group of specially qualified physicians and surgeons, both for hospital patients and for out-patients. (b) Consultations and advice as to treatment by medical and surgical experts. (c) Clinical, bacteriological, and chemical laboratory service and x-ray facilities at moderate cost or free, when necessary.

(3) To encourage and provide facilities for an annual medical examination to detect physical defects and disease, to discover conditions favorable to the development of disease, and to indicate methods of correcting the same.

(4) To provide or aid in securing adequate school medical inspection and school nursing service, in cooperation with the Department of Education.

(5) To secure or aid in securing better enforcement of the Public Health Law and a more effective administration of Public Health activities within the area served.

(6) To provide a public health nursing service adapted to and adequate for the community served.

(7) To aid in securing the dissemination of information in regard to public health throughout the area served.

(8) To aid in securing adequate compensation for medical and surgical care rendered in hospitals and clinics, in order that efficient service may be everywhere available.

(9) To provide laboratories, group diagnosticians, consultants, and hospital facilities in the smaller cities and rural districts; to counteract the growing tendency of medical practitioners to remove to larger centers, and to attract to and to retain in the practice of medicine in these communities a larger number of qualified practitioners of both sexes.

(10) To provide medical libraries, including books, pamphlets, periodicals, leaflets, exhibits, moving picture films, and kindred educational facilities, with halls for meetings if needed.

(11) To provide hospital and other necessary resources for dealing promptly with epidemics.

(12) To reduce illness and disability among the industrial workers of the state by providing prompt and accurate diagnosis and efficient treatment for sick and injured workers and the members of their families.

(13) To coordinate public health activities within the districts.

Health Centers Provided

(1) A health center may consist of the following parts, any one or more of which parts may be established at one time with the approval of the State Commissioner of Health and the formulation of a general plan for the whole center.

(a) *Hospitals.*—The erection of new hospitals or arrangements with other institutions, or both, so that they shall form essential parts of the center. Such hospitals may include as units thereof existing or hereafter established hospitals or pavilions for the care of tuberculosis, for cases of other communicable disease, for children, for cases of maternity and mental diseases, and for other groups. Existing tuberculosis hospitals may become parts of the health center of a city or county by which they may have been established.

(b) *Clinics for Out Patients.*—These would include especially those now regarded as public health clinics, such as those for tuberculosis and venereal disease, prenatal and child welfare, mental and nervous diseases and defects, and clinics for school children, dental clinics, and also medical, surgical, and diagnostic clinics.

(c) *Laboratories.*—Clinical, bacteriological, and chemical laboratories, auxiliary to the state laboratory, and x-ray laboratories would provide services at moderate charges, or free, affording modern laboratory facilities needed in the diagnosis and treatment of disease.

(d) *District Health Service,* with a district health officer and deputy health officers in various parts of the district, such districts to be either a city or county, or a consolidation of two or more existing health districts (such consolidation to be approved by the State Commissioner of Health). The present health officers in these districts shall act as deputies during their present terms of office. In the subsequent appointments of deputies in the various portions of the districts, persons residing therein possessing the qualifications prescribed by the Public Health Council shall have preference. Each local health board shall appoint for its own town or village a deputy to the health officer of the health center district.

(e) *Public Health Nursing* service for all parts of the district.

(f) *Center for School Medical Inspection.*—Proper medical supervision and facilities to enable practitioners to provide adequate treatment for all school children showing physical defects or disease.

(g) *Headquarters.*—All health, medical, nursing, and other public welfare activities of the district which wish to utilize the center could make it their headquarters.

(2) The locations, sites, plans and initial equipment of the health center shall be subject to the approval of the State Department of Health. The State Department of Health and the State Architect shall provide model plans for such centers for any community requesting them.

State Aid to Health Centers

(1) To be granted for each hospital bed constructed or provided for under this statute. (a) For new construction and equipment of hospitals, one-half of the cost to be paid by the state, such payment not to exceed $750 per bed; and beds for the purpose of this provision to be in proportion not in excess of one to each five hundred of the population. (b) A grant of seventy-five cents per day for every free patient maintained in any hospital operated as a part of a health center.

(2) To be granted for clinics and annual medical examinations. (a) A grant for the creation of out-patient clinics equal to one-half of the initial cost of establishment, the amount to be paid by the state for this purpose not to exceed $5,000 per clinic, and twenty cents for each free patient in such clinic; one such center for each district, provided that in counties or cities or districts having more than 50,000 population there shall be not

*This plan and memorandum were prepared by the State Department of Health to carry out the recommendations of Governor Alfred E. Smith of New York, made to the legislative session of 1920.

more than one health center per 50,000 inhabitants or major fraction thereof. (b) A grant of fifty cents for each free comprehensive annual medical examination made at the health center.

(3) *For the maintenance of laboratories*, a grant from the state of one-half of the annual cost of maintenance of laboratory of health center, the sum to be paid by the state not to exceed $3,000 per annum for each laboratory, and $1,500 toward the initial installation and equipment of such laboratory.

(4) *For salaries of deputy health officers*, a grant of ten cents *per capita per annum* toward the salaries of deputy health officers in health districts having less than 1,500 population, and of five cents *per capita per annum* in health districts having a popualtion between 1,500 and 3,000, in addition to such salaries as they are entitled to receive from the local treasury.

(5) The total annual grants for the construction of hospitals and clinics shall not be in excess of $2,000,000; and for the maintenance and operation not in excess of $2,000,000. Salaries and traveling expenses of consultants and experts employed by the State Department of Health, and other expenses necessarily incurred by the State Department of Health in the enforcement of this Law, shall be paid from the sum appropriated for grants toward maintenance and operation of health centers—this sum not to exceed $250,000 *per annum.*

General Provisions

The District Health Officer may be the superintendent of the hospital and general director of health of the district and of the hospital and medical activities connected therewith. The qualifications for district health officers, deputy health officers, superintendents of hospitals and medical activities, chiefs of clinics, and other medical officials and nurses shall be fixed by the Public Health Council, and their appointments be subject to the regulations of the State Civil Service Commission.

The work of all health centers, hospitals, clinics, and district laboratories connected therewith shall be inspected and standardized by the State Department of Health, and the state grants shall be paid only on the written approval of the State Commissioner of Health.

Provision shall be made for occasional or periodic consultations or clinics at the health centers by specialists in medicine and surgery to be furnished through the State Department of Health, and wide previous public announcement of these clinics and consultations shall be made. At these consultations and clinics health officers and physicians may bring their patients for assistance in diagnosis and for advice as to treatment. Fees received from these consultations for the state service shall be credited to the hospital or center where the service is rendered.

The health center laboratories shall be under the supervision of the director of the State Health Department Laboratories, in order that their work may be maintained at a high level of efficiency; and the facilities of the state laboratory service shall be available to supplement those of the laboratories of the health centers.

The salaries of the medical and surgical staff, the fees for medical and surgical care, and the conditions for free service in the hospitals and clinics, shall be determined by the Board of Managers. The method of appointment and composition of such boards of managers of the health centers and hospitals to be provided for in this bill.

We hail science as man's truest friend and noblest helper.—Harvey.

TRAINING OPPORTUNITIES IN THE MEDICAL DEPARTMENT, UNITED STATES ARMY

By COLONEL HENRY F. PIPES, Medical Corps, United States Army

Since the resumption of recruiting for the army on February 28, 1919, the Medical Department has obtained approximately 15,500 men by voluntary enlistment. Many of these men will be discharged during the calendar year and the vacancies thus created will be filled by new men. It is the purpose of this article to explain what the Medical Department, including the Dental and Veterinary Corps, offers by service within its ranks, so that prospective applicants, their parents and relatives, and others may realize the many material advantages that are available to those who enlist in the service, either for a career or as a stepping-stone to other fields of work.

In past years much has been unjustly said in detriment to our service men. Fortunately the present publicity campaign, now being conducted by the War Department, is educating the public to a better knowledge of what the Army really is, and to a greater appreciation of the fact that it is an institution which, by its operation, is furthering the Americanization movement under way in our country. The World War caused certain beneficial results in the administration of our Army, and notably among them were the establishment of a more intimate relationship between the military machine and its enlisted personnel, and an appreciation on the part of the officials that the Army must train men not only in their military duties but along lines of benefit to themselves and the country at large. The educational and vocational training policy was consequently adopted and is now being put into execution. A practical system of coordinated educational and vocational training is being perfected so that all men who desire it may secure training that will render them more effective for military service, and at the same time more fit for success in civil life.

The plan is an excellent one and it places the Army on a basis whereby it does not have to compete with labor to secure adequate personnel. It offers practical training opportunities as well as financial and other benefits. It must be emphasized, however, that military duties take precedence over vocational and educational training. The "Army builds men" and it does so to a large extent through its maintenance of military discipline and training. In the Infantry a soldier will perform guard duty and go to drill. In the Medical Department there will be full performance of all duty required by the Department.

General Plan of Training in Army

Inasmuch as enlisted men of the Medical Department may, whenever practical, avail themselves of the training opportunities, both vocational and educational, existing at their own station, post, or camp, the general plan of training as adopted by the War Department should be considered. There are sixty-seven essential and forty-seven less essential subjects embraced in vocational training, grouped under seventeen departments, namely, automotive, electrical, building, textile, food, animal transportation, metal, printing, medical, highway construction and topography, music, leather, mechanical, miscellaneous, business, and agriculture. The educational training consists of two courses, basic and advanced. It is not intended that all the various courses in vocational training will be established at each post and camp in the Army as obviously this cannot be accomplished. Certain camps will specialize in certain lines of work. Camp Holabird, Maryland, the training camp of the Motor Transport Corps, will specialize along automotive lines; Camp Vail,

New Jersey, the training school of the Signal Corps, in electrical subjects, and general hospitals in medical and hospital training. The divisional camps, Camp Talor, Ky., Camp Travis, Tex., Camp Pike, Ark., Camp Dodge, Ia., Camp Gordon, Ga., Camp Grant, Ill., and Camp Funston, Kansas, are the places where the greatest variety of courses will be successfully taught. It is recognized that it is impracticable to establish courses in a wide range of subjects at small pasts, but it will be possible to give practical instruction in a number of useful vocations and in educational training to meet all reasonable desires. Each soldier taking vocational training is encouraged to take a relative educational course and upon completion of his instruction he is given a certificate by his local commanding officer certifying his satisfactory completion of his particular line of training. Eventually a standard War Department Certificate will be adopted for general use throughout the service. However, this will not be done until the time when the certificate will represent for each vocation a certain definite degree of proficiency, uniform throughout the entire service, and fully meeting the requirement of civil life, as well as of the Army. The standards adopted will be such that a discharged soldier, character "Excellent," with a War Department certificate showing that he has qualified, for instance, as a carpenter, will need no further proof either of character or of proficiency when seeking civil employment as a carpenter. Similar War Department certificates covering educational subjects will, it is expected, be accepted by civil educational institutions as evidence of proficiency in such subjects.

Medical Department Training

In the matter of training, the Medical Department combines theoretical with practical instruction. In the performance of their duties, Medical Department enlisted men are constantly acquiring practical training in the line of work to which they have been assigned. In each department of a hospital and in other Medical Department units, this training is going on. In the offices we find men, under competent supervision, becoming proficient in typewriting, stenography and clerical work. In the operating room, minor surgery and surgical technique are imparted to its enlisted force; in the wards, nursing and ward management is taught; in the kitchen, cooking, care of funds and mess management; and in such special department, laboratory, work shop, and other assignment, the enlisted man is trained in his particular duty.

It is prescribed by the Manual of the Medical Department that regular classes of instruction be held in pharmacy, anatomy, physiology, first aid and nursing, and for selected men, courses in cooking and diet cooking, materia medica, and pharmacy, elementary hygiene, and clerical work. In addition to those courses of instruction, classes may be established for the training of the following:

(a) Laboratory assistants and technicians.
(b) Chauffeurs and relative automotive work.
(c) Stenographers and typists.
(d) Dental hygienists.
(e) Instrument repairers.
(f) Cooks.
(g) Saddlers.
(h) Horseshoers.
(i) Physio-therapeutist.
(j) Food and forage inspectors.
(k) Packing house foreman.

At any post, camp, or station, where facilities are provided for instruction in other recognized courses by agencies other than the Medical Department, enlisted men of the Medical Department who desire to take advantage of any course will, if practicable, be afforded the opportunity to attend it. Courses already under way for patients at general hospitals under the section of physical reconstruction may be attended by enlisted personnel of the Medical Department at the discretion of the commanding officer of the hospital.

Special training is available for qualified men at the Army Medical School, Washington, D. C. Courses of instruction are given at this school in bacteriological and pathological work, for qualification of men as laboratory workers, and also training in radiography for service in X-ray work at certain hospitals.

Recent instructions issued by the Department provide that every endeavor be made by the commanding officers of general hospitals and post surgeons to better the efficiency of their men. It is prescribed that the better details about a hospital will be filled by enlisted men in preference to civilian employees in order that the enlisted men may acquire the best available training and receive advancement when qualified. These instructions are general and apply to both privates and non-commissioned officers.

The training program in the Medical Department has not reached, as yet, its highest degree of perfection, and the same may be said of that of the Army. Both, however, are progressing and eventually will reach a higher order of merit.

JERSEY CITY HEALTH WORK

Hon. Frank Hague, Mayor of Jersey City, who has been much interested in matters pertaining to Public Health, had under consideration the concentration of all medical activities in Jersey City. As a result of this, the position of Medical Director of Jersey City was created, and Dr. John Nevin appointed in January, 1919.

The Medical Director has direct supervision over the Jersey City Hospital, Isolation Hospital, Board of Health, Division of Child Hygiene, the City Physicians, and various City Departments. The position is somewhat unique in that it is, perhaps, the first position of its kind in this country created to place the responsibility for the proper working of these units. It is in line with modern administrative methods.

The Board of Health is separated into two divisions, Medical and Sanitary. The Medical Division has a staff of nurses and physicians who control contagious diseases, etc. The Sanitary Division is sub-divided as follows: Milk Inspection, Plumbing Inspection, Sanitary Inspection, Food and Drug Inspection, Legal Division, and Division of Chemistry.

The inspection of milk particularly is done under a somewhat elaborate system, inspection taking place at the points of production (dairies, creameries, etc.) as well as at points of distribution in Jersey City—and with very satisfactory results in the quality of milk.

The Isolation Hospital is a hospital for contagious diseases.

Child Hygiene and Mothers' Institute

The Division of Child Hygiene deals with the life of children from the pre-natal period to school age, and its functions are: (1) the reduction of infant morbidity and mortality; (2) supervision of infants boarded out in private houses; (3) inspection and supervision of day nurseries; (4) control and supervision of midwives. There are eight stations so distributed geographically that each section of the city is covered. At each station there is a visiting physician and a visiting nurse. These stations

are intended as consultation places for mothers. They are also distribution centers for milk. Home modification of milk is provided for.

A recent addition to this Division which, it is expected, will produce exceptionally good, far-reaching results, is the opening of what is called the Mothers' Institute. This is the headquarters of the Division, and its object is essentially educational. A large assembly hall is to be used for lectures and demonstrations to mothers, prospective mothers, and midwives, and each week instructions will be given in dietetics.

It is provided with a well-equipped ward and laboratory with up-to-date apparatus for the modification of milk. Resident Nurses are in attendance, and cases of malnutrition who cannot receive proper care at home will be placed in the ward for the necessary period.

Health Center in City Hospital

The Medical Director has so systematized the work as to create a Community Health Center, namely, The City Hospital, and from this point radiate all of the chief medical activities. The report of the work done at the City Hospital proper shows the necessity for an institution of high type, physically and scientifically. It is generally recognized that while an institution such as this is expensive in construction and up-keep, it pays for itself in the service it renders the community. When the Jersey City Hospital is fully completed and equipped, it will compare favorably with any hospital of its type in this country. X-ray and pathological laboratories are about to be installed and will be complete and up-to-the-minute.

The ambulance service is sufficient to meet almost any emergency, and consists of six Cadillac ambulances fully equipped.

The following is a statistical report for the year ending December 31st, 1919, of the Jersey City Hospital.

Total patients treated in hospital wards		5,759
Cases treated in Out-Patient Department—		
New cases	8,885	
Re-visits	15,165	24,050
Emergency room, patients treated		5,213
Ambulance calls		4,110
Total number of patients treated in all departments, including re-visits		2,180
X-ray		2,180
Major operations		940
Minor operations		1,487

THE WAR'S EMPHASIS ON HEALTH EDUCATION*

In an address on the War's Emphasis on Health Education, Thomas D. Wood, M.D., Chairman of Committee on Health Problems of the National Council of Education, outlined a national program of health education adapted to meet the present day needs for the up-building of the health of the nation. The appalling number of young men unable to serve in the army owing to physical defects, and the statistics showing that 75 per cent of the 20,000,000 school children of the country are handicapped by physical defects, have led to an awakening sense of a national peril to the health and efficiency of the people.

What is being done for the rehabilitation of the men who suffered injury of any sort in the army, is a tremendously worthy undertaking and will repay the nation many times in the mental and physical well-being of its people; but what is being neglected in the care of the health of the children of the country who form the great citizen army of the future, will cost an inestimable sum in the happiness and efficiency of the nation. Not only is the health of the city child endangered, but what is more appalling, the rural school children are handicapped by more defects than the city pupils. Certainly the children, drafted by compulsory education into the schools, should be assured as skillful and satisfactory care as the soldiers in camp and trench. The health and physical efficiency of the nation depend upon the protection and development of the physical fitness of the young, and only when the country as a whole unites in undertaking a comprehensive program for health training will this be assured.

The possibilities of a broad health program are extremely great in a nation having compulsory education and free schools. Although the actual health care must be accomplished by the home, health boards, and other organizations, the school is the agency through which the national health program can best be launched and carried out.

A brief summary of the items outlined by Dr. Wood, as essential in a national program of health education, are the following:

1. Health examination, and supervision of the pupils' health with provision for (a) daily inspection of pupils, and regulation of attendance at school for the prevention and control of acute and contagious diseases, and (b) health examination and dental inspection, follow-up health service, correction of all harmful, remediable defects by medical and surgical care and by dental and health clinics, and warm lunches for all pupils.

2. A healthful school environment.

3. A hygienic school management which insures conditions in the highest attainable degree favorable and healthful.

4. Effective health training and teaching of pupils, including inculcation of health habits, instruction in facts, principles, and motives which will provide the basis for intelligent and effective action, and education of children for responsible parenthood.

5. Provision for an adequate and rational physical education.

6. Better preparation for teachers for health education.

To provide the essentials of administration for a National Program of Health Education Dr. Wood has submitted the following propositions:

1. That a comprehensive, thorough-going program of health education and physical education is absolutely needed for all boys and girls of elementary and secondary school age, both rural and urban, in every state in the Union.

2. That legislation, similar in purpose and scope to the provisions and requirements in the laws recently enacted in California, New York state, and New Jersey, is desirable in every state to provide authorization and support for state-wide programs in the health and physical education fields.

3. That the United States Bureau of Education should be empowered by law, and provided with sufficient appropriations, to exert adequate influence and supervision in relation to a nation-wide program of instruction and health education.

4. That it seems most desirable that Congress should give recognition to this vital and neglected phase of education, with a bill and appropriation similar in purpose and scope to the Smith-Hughes law; to give sanction, leadership, and support to a national program of health and physical education; and to encourage, standardize,

*Excerpt from address before the National Council of Education, February 28, 1918.

and in part, finance the practical program of constructive work that should be undertaken in every state.

5. That federal recognition, supervision, and support are urgently needed, as the effective means, under the constitution to secure that universal training for boys and girls in health and physical fitness which are equally essential to the efficiency of all citizens both in peace and in war.

FULL TIME PATHOLOGIC INTERNS

By HENRY J. GOECKEL, Phm.D., Director, Pathological Laboratory, Muhlenberg Hospital, Plainfield, N. J.

The Board of Licensure and Medical Practice of the State of Pennsylvania require a hospital to maintain a full time pathologic internship as part of the rotating service for interns. While Muhlenberg Hospital is not in that state, the Governors considered the innovation a good one, and a year ago added a fourth intern to the service, (there had formerly been three interns), giving each one a full three months' service in the laboratory.

After a fair trial of such full time pathologic interns, I, as the clinical pathologist and biological chemist of the institution, regret to say that I do not think such a service is a success from any point of view.

The majority of interns will not be found interested in such work beyond becoming conversant with the few tests adaptable to office use. As practicing physicians they have no desire nor need to become expert in the extended laboratory methods of examination. As they lack interest as well as experience, their examinations are far from reliable and far from complete. As a result, such service is of decidedly limited value to the institution, and in my opinion, a loss of time to the intern, a waste of the hospital's resources through inadequate returns in volume and quality of service, and actually detrimental to the laboratory because of such inefficient service. The three months' time which interns devote to making analyses can be employed to far better advantage to themselves and to the patients, by bed-side observation and by learning how to interpret the results of laboratory examinations in relation to the given case, both from the attending's view and from that of the clinical pathologist. The latter should aid the former in learning the value and limitations and the possible sources of error in such laboratory tests. The intern should be required to check up the results of the examinations with the physical findings and the clinical diagnosis. It would be a good plan to require him to report at the weekly staff meeting the number of each kind of specimens examined, wherein they aided or confirmed the clinical diagnosis, wherein they differed, and wherein they proved of no value.

In a hospital of from one hundred to two hundred beds with a limited ambulance service, the pathologic intern could well be on first call for ambulance duty. He should be required to perform all autopsies under the pathologist's supervision, and to write up the autopsy reports, which are not very numerous in such a hospital.

Technician in Laboratory Service

With the extension in the field of laboratory diagnosis, hospitals of a hundred or more beds, if properly equipped and maintained, require the services of more than one experienced person in the laboratory. Most of such institutions are not in a position to employ more than one thoroughly qualified clinical pathologist. The employment of an intern for that purpose is not a satisfactory solution for results, even though it seems financially the easiest way to solve the problem.

However, technicians can be secured who are trained and proficient in making many of the routine examinations, such as the general urinalysis, blood counts, and slides for tubercle bacilli. By employing a technician the hospital will obtain reliable service and will permit the clinical pathologist to devote his time to the serologic and other more difficult examinations. In a first class laboratory service, one half of the clinical pathologist's day will be spent assisting and advising the attending physicians and interns on the interpretations and significance of the results of the laboratory examinations.

A reliable technician, although an addtion to the payroll, will greatly increase the efficiency of the hospital. He or she can make more accurate tests and can make them more rapidly than interns. He or she will likewise readily detect abnormal factors which most interns would fail to note. Employing a technician will also enable the hospital to give practical laboratory training to the undergraduate nurses, thereby not only increasing the supply of technicians for the hospitals, but also better qualifying graduates as office nurses.

BUFFALO FREE DIAGNOSTIC CLINIC

The recent establishment of a Free Diagnostic Clinic in Buffalo, N. Y., is a very significant move in public health work. The clinic is for the use of physicians of the city of Buffalo and the county of Erie, and any child or adult resident in the city is eligible to its service. The consulting staff of the clinic is made up of chiefs of divisions of the attending staff of the Buffalo City Hospital and the various health centers. These men also hold professorships in the medical department of the University of Buffalo. Through the employment of this type of staff, not only are citizens of moderate and poor circumstances given the benefit of the finest professional advice, but also the general practitioner and the teaching staff of the University Medical Department are rendered valuable aid. The staff includes specialists in urology, oto-laryngology, obstetrics, gynecology, psychiatry, general surgery, proctology, roentgenology, orthopedics, neurology, general medicine, special neurology, pediatrics, dentistry, ophthalmology, dermatology, laboratory, and tuberculosis.

Applicants are asked to call for a preliminary examination, when proper histories are executed and necessary laboratory specimens taken. They are then referred to members of the consulting staff.

A report of the findings in each case, signed by the examiner, is mailed to the physician with whom the patient originated. This clinic is for diagnosis only. No treatments are given. Neither are patients examined, except upon the written recommendation of a regularly licensed doctor of medicine. The clinic is designed primarily for the use of physicians' pay patients who cannot afford the customary consultation fee. No routine investigation of the financial standing of any applicant is attempted.

Physicians may refer patients to the clinic for special laboratory work only, viz.: gastric contents, feces, blood counts, physiological tests, etc., including x-ray. A small charge is made for the latter to cover cost of plates.

All laboratory work is done by the staff of the Buffalo City Hospital if a complete study of the case is made.

> Know, then, whatever cheerful and serene
> Supports the mind supports the body too.
> Hence the most vital movement mortals feel
> Is hope: the balm and life-blood of the soul.
>
> —Dr. John Armstrong.

Treating Vienna's Tubercular Children

Figure 1. Nurses feeding tubercular children in Prof. Pirquit's Hospital in Vienna. Thousands of Austrian children are afflicted with tuberculosis because of lack of proper nourishment.

Figure 2. Prof. Clemons Pirquit, chief advisor of the Entente Food Commission in Vienna and head of a Vienna hospital for tubercular children, is here seen treating a child with his new serum.

Figure 3. A view of the outdoor ward in Prof. Pirquit's hospital in Vienna. Prof. Pirquit was for years associated with the Johns Hopkins Hospital in Baltimore.

Figure 4. The little patients in Prof. Pirquit's Vienna hospital are supplied with food by the American Relief Commission in Vienna.

THE MEDICAL HOSPITAL, AND NURSING PROBLEM IN RURAL WESTERN CANADA

Need for Help to Prairie Mothers—Work of the Victor Order of Nurses—Legislaton in Aid of Rural Hospitals and Medical Service.

The women who face approaching motherhood on the remote prairies of Western Canada need the courage of soldiers going to the front. The nearest medical and nursing help and hospital accommodation may be forty or fifty miles away; there are perhaps no telephones, few neighbors, poor roads, no motor cars, possibly oxen to travel by instead of horses.

There are districts in the prairie provinces where the population is so sparse and the financial returns for medical practice so inadequate, that it is almost impossible to procure a resident physician, says F. C. Middleton, of the Bureau of Public Health, Regina, Saskatchewan, writing in the public Health Journal of Toronto. The government of Saskatchewan has therefore passed legislation empowering the council of a rural municipality (an area 18 miles square), after submitting a by-law to the electors, to engage a legally qualified medical practitioner for the municipality at a salary not exceeding $5,000 a year. In certain cases in which there would be difficulty in securing physician for confinement cases, the government provides for a maternity grant of $25.

The Victorian Order of Nurses has in part met the need of nurses, especially in maternity cases, in the rural districts. The order sends two nurses together into a district and provides them with a home which they use as headquarters from which they do their visiting or nursing. In some cases the organization builds a small hospital which may be turned over to the local authorities as soon as the district is able to manage it. Legislation in aid of rural nursing has been passed in Saskatchewan. The supply of nurses for both urban and rural work is said to be very insufficient, however. The recent influenza epidemic emphasized also the lack of information and training on nursing subjects among the majority of women. As opportunities for nursing instruction are wanting in the rural districts, short courses in practical home nursing, to be given by nurses especially trained for teaching, have been arranged for smaller rural centers. A specially trained trachoma nurse, speaking several foreign languages, has been provided under the supervision of the commissioner of public health for sections settled by foreigners affected with this disease. Tuberculosis is a reportable disease, and any case of tuberculosis reported through the district medical health officer to the provincial bureau of public health is visited by the tuberculosis nurse from that bureau. Six school nurses are this year inspecting the children for bad teeth, unhealthy tonsils, adenoids, defective sight, etc., and the schools for ventilation, adjustment of seats and desks, lighting, etc.

Municipal hospital legislation in Saskatchewan (it will be remembered that a "municipality" is a territorial division which may be either rural or urban) permits two or more rural municipalities to cooperate with any number of urban municipalities to establish a union hospital. Figures furnished by Dr. M. M. Seymour, commissioner of public health of the province of Saskatchewan, illustrate the cheapness with which the plan works out. A fifteen-bed hospital for a district consisting of one urban and two rural municipalities is estimated to cost $30,000. The money is raised by the issuance of twenty-year debentures at 7 per cent interest, repayable in equal annual payments of $2,600 each by the amortization plan. Of this the urban municipality undertakes 10 per cent, or an annual repayment of $260, and the two rural municipalities together 90 per cent, or an annual repayment of $2,340. The latter sum is raised by a taxation of $1.13 per quarter section on the 2063 quarter sections in the two rural municipalities.

The urban member of the hospital partnership is advised to arrange for each patient to pay his own hospital account, but it is recommended that the hospital fees of all patients from the rural hospitals be paid for out of the general taxes on that municipality. About seventy patients a year may be expected from each municipality, each making an average stay of fourteen days, or a total of 980 hospital days in the year. For the two rural municipalities this amounts to 1,960 days, at an estimated cost of $2.50 per day, amounting to $4,900 in all. A government grant of 50 cents per patient per day amounts to $980, leaving $3,920 to be paid for by the municipalities. The tax on the 2,063 quarter sections to pay this will come to $1.90 a quarter section, which, with the $1.13 previously mentioned for building and equipment, amounts to $3.03 annually for building, equipment, and maintenance to provide hospital care for all the residents of the two municipalities. Nine hospitals organized on this plan are working and giving the best of satisfaction in Saskatchewan, according to information received from Dr. Seymour, the commissioner of health.

These fifteen-bed hospitals are of course too small to support training schools with the standard three-year course. Dr. Seymour has accordingly worked out the following plan for the nursing service:

Girls with a satisfactory amount of schooling are admitted for training. For one year they are given a course in practical and theoretical nursing, doing meanwhile the work usually done in hospitals by pupil nurses, and receiving $25 a month, board, lodging, and washing. At the end of twelve months they are given a three-month course in the provincial sanatorium, including intensive work in urinalysis, bacteriology, and diagnostic methods. At the end of the fifteen-month period, after passing a satisfactory examination and producing evidence of good work during the period of training they are given certificates as "nurse aids," by the Saskatchewan Bureau of Public Health.

The province of Alberta has a municipal hospital system parallel in most respects with that of Saskatchewan, but Alberta has as yet not completed the erection of any hospitals: The Alberta government grants aid to the extent of 25 cents per patient per day, as against 50 cents granted by Saskatchewan. Alberta is also preparing to extend financial cooperation to the Victorian Order of Nurses, and also to subsidize physicians in the outlying districts. Twelve welfare stations in charge of registered nurses are to be established in the more populous centers outside of cities in Alberta.

Manitoba has adopted a system of rural public health nursing under the direction of the provincial board of health.

PHYSICAL COURSES RESTORE TO DUTY

The office of the Surgeon General announces that soldiers in development battalions were taken with slight physical handicaps and put through physical development courses and assigned to limited service. About 224,717 men were thus handled; 18 per cent of whom were restored to full duty; 20 per cent to limited overseas duty; 19 per cent to limited domestic duty; or a total of 57 per cent assigned to some essential duty, thus saving the manpower of the nation.

NURSING AND THE HOSPITAL

Conducted by CAROLYN E. GRAY, R.N.,
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SYMPOSIUM ON STUDENT GOVERNMENT

DISCIPLINE IN SCHOOLS OF NURSING*

HARRIET M. GILLETTE, R.N., Superintendent of Nurses, Hamot Hospital, Erie, Penna.

If we were to make an investigation of the forms of discipline which have prevailed in the schools of nursing in this country during the past twenty years, we should undoubtedly find the vast majority have been governed by a more or less rigid military type, so called because of its autocratic and relentless rule.

Now that Militarism and its effect on character have so shocked the world, it would seem that the schools,—the educational centers of a great democracy, would hasten to rid themselves of anything that bears the least resemblance to a form of government which so distorts the vision and judgment of its citizens.

It is hard to understand why a military system of discipline was considered either a necessary or suitable method of governing young women about to enter a profession whose chief cornerstone is humanitarianism. Its object probably was to teach the pupils submission—to take orders and carry them out without question or comment. It was instituted at a time when admission requirements as to education and intelligence were lower than now and when the field for trained nurses was more limited. It undoubtedly accomplished its purposes, but it killed initiative and repressed, rather than brought out, those individual characteristics which are the means of self expression.

Any form of government once instituted is hard to change. A revolution is often the only way of accomplishing it. But the attempt which has been made during the past two or three years to interest schools of nursing in "Student Government," is an indication that many are awake to the fact that we must lay aside this military form of government, which is no longer suited to our needs, and adopt some form which will develop the powers of reasoning and judgment in our pupils. What that form shall be is one of the questions uppermost in the minds of those interested in the progress of nursing education. Shall it be a government by the student body, or shall it be a form less well organized where the students really govern themselves, but do so aided by the instructors?

When the Army School of Nursing was started we were encouraged to institute "Student Government," but the pupils in our unit were not very enthusiaistic about it, although they did appoint a council. However, few meetings were held, and we did not press them to continue a system which did not seem to be accomplishing the results which we expected of it. We gradually dropped into a type, which for lack of a better term, I will call the cooperative. It is a very simple and rational form of government, and is really a transition stage between the less rigid military form and the "Student Government." It is very likely now coming into being in many schools, and I am going to note here some of the factors upon which its success is dependent.

Cooperative Type of Government

For convenience I will discuss this type of government under three headings:

1. Rules and Regulations.
2. Student body.
3. Instructors—and by instructors I mean all those who are in any way responsible for the work or conduct of the pupils.

Rules and Regulations

Make as few rules as possible and these after careful deliberation. Form them with care so there may be no ambiguity. Talk them over with each class soon after its arrival, giving the reason for imposing each. Much may be accomplished toward making the pupils realize their responsibility regarding these regulations by stressing them and the principles on which they are based in the Household Economics, Ethics and History of Nursing classes.

The Student Body

The part the student must play is of course the all important one. It is to keep the rules and to so direct her conduct that there shall be no adverse criticism of the school. This involves not only obedience to written law, but the exercise of judgment. The easiest way to assure the accomplishment of these aims is to expect it. The word *expect* should be written with capital letters, for it is the keynote of success in this cooperative government. Have faith in the students—expect them to do the right thing, and they will do it in the majority of cases. We found that at least 98.5 per cent of our pupils wanted to do the right thing. Some were weak and needed much encouragement; some had poor judgment; but these showed improvement in the few months they were with us.

The ones who do not want to do the right thing should be eliminated from the school. Those who are persistently weak willed or lacking in judgment should be dealt with in a manner fitting the offense. It is often most effective to let the pupil decide what the penalty of her indiscretion shall be. The Ethics course points out that so-called pun-

*Written while Instructor in Army School of Nursing.

ishment is not to hurt one's feelings or "to get even," but is a means of making an impression so strong that the offender will decide not to offend again.

The Instructors

If this form of government is to be cooperative, we must have a working together of pupils and instructors. It is with the instructors that the greatest responsibility rests, for the attitude of the pupils toward the school and its government is determined by the attitude of the instructors toward them. I have already mentioned that the instructors must trust the pupils. They should also be possessed of good temper. Prof. Lawrence P. Jacks of Oxford University has said in a recent article, "Good temper is the greatest ethical need of the present time." Cooperative government can hardly be a complete success unless the instructors possess their full share of it.

Another requisite without which those in charge of the pupil nurses will be greatly handicapped is a sense of fairness—the ability to see the other side of the question, and then to weigh carefully and accurately. It is the feeling that one has not had a fair deal that rankles and furnishes the seed for rebellion.

The instructors should also manifest an individual interest in the pupils. It is not the aim of this form of government to fashion them all after one pattern, but to study the needs and peculiarities of each one. Criticism should not be given unless merited; neither should it be withheld when deserved. Care should be taken not to humiliate the offender in the presence of others, and to see that the pupil knows how to correct the error. These then are the essential factors in a cooperative form of government:

1. Accept only those pupils who want to do the right thing.
2. Make the fewest regulations possible and explain why these have been made.
3. Expect: (a) the rules to be kept. (b) the conduct of the pupils to be above criticism.
4. Treat students fairly, having respect for their intelligence and good sense.
5. Never let a pupil leave your presence without making her feel that you have her interest at heart.

If we substitute this training through reason for that older type of training through suffering, there will be few so-called cases of discipline in our schools. The repressed, antagonistic nurse, who likes the work, but would not advise her friends to take it up because of the unpleasant experiences of the training, will be replaced by an appreciative, enthusiastic type who will be anxious to do credit to her school and her profession, and who will urge her friends to come in and be one of us. May it not be one of the factors in bringing into our schools the right type of young women?

STUDENT GOVERNMENT IN TRAINING SCHOOLS FOR NURSES

EFFIE J. TAYLOR, R.N., Assistant Director, Johns Hopkins Training School.

One of the most comprehensive words in our vocabulary is the word government. It is associated with all history. Out of it or through it all national or international difficulties have arisen and have been solved. Because of it organizations have been formed and protection assured. It is that which safeguards civilization.

Since history has been recorded, in every community some form of government or control has been instituted. Throughout the ages in various countries governments known as autocratic, despotic, plutocratic, tyrannic, military, democratic, socialistic, and other forms have held sway, according to the ideas of the various groups of people concerning life and its control. In every group there are people who lead and people who follow. For convenience of thought, all forms of government may be divided roughly into two great divisions: first, the autocratic form; second, the democratic form; neither one perhaps, embodying all the principles of justice, but the latter the more nearly measuring up to perfection.

In our training schools for nurses the form of government which has traditionally been accepted is the military form, more closely allied to autocratic than democratic rule. The student government plan would naturally fall under the second division. To discuss the history of nursing and its government is not the issue in this article. Suffice it to say that when the first training school was established in connection with a military organization, military government was the most desirable and efficient form of control and was a safeguard and defense. It was also a factor in establishing the rights and privileges which the British military nurses enjoy today. In our civil hospitals, however, we are not dealing with a military organization. In our training schools for nurses we are considering a body of students who have entered these schools of nursing for the purpose of obtaining an education to fit them to care proficiently for the sick, to acquire knowledge in the prevention of disease and in the preservation of health in the community. These students differ from students in the majority of other educational institutions in that they are mature women, the average age at entrance being perhaps not less than 20 or 21 years.

A problem for which a solution does not seem to be readily forthcoming is, why in order to adequately train one to care for the sick it was ever thought essential to institute a system that would so thoroughly crush out one's individuality and initiative. To supplant all other qualities by submission seems to be the object desired, and to successfully bring one to the point of accepting all orders without question, as decreed by the one in authority, is the height of attainment under the autocratic and military system. One is forced to bow to the right of authority.

We all know more or less of this system and its result. We have all seen its inconsistencies. We have all heard the criticism of the students who have rebelled against so arbitrary a rule, and we have seen and do see the machine-like products it turns out.

Advantages of Military Government

On the other hand, there is something to be said for a system which trains in exactness, promptness, attention to detail, and a forgetfulness of self. A training school for nurses is after all an absolutely different kind of school than that connected with any other institution of learning. From the very beginning of her life in the hospital ward the student nurse has to deal with human implements instead of, as in other schools, merely books and mechanical things, and her mistakes may react seriously. She cannot be allowed, therefore, to use her own judgment in her ignorance. While she is acquiring knowledge and skill, her patients must be safeguarded against possible mistakes. It is because of this fact that a rigid discipline is considered essential, and that an abundance of routine rules and regulations are made from which she cannot be allowed to deviate. The system, however, has been autocratically carried over into the home life of the student without a just understanding of its value. Perhaps, then, it is not the principles back of our govern-

ment which are at fault, but a wrong adjustment and administration of these principles.

"To train" is to enable one by frequent practice and instruction to attain skill. "To discipline" may be defined in a similar way, but ordinarily, discipline involves something more. It may include both a subjective and objective relationship. Under military rule the objective relationship is outstanding. One will submit to discipline if one believes in the object to be attained and wills to subscribe to it, but on the contrary, one rebels if forced to submit to what one does not understand and acquiesce in. In the former case discipline tends to development and growth, while in the latter it tends to fostering an antagonism to authority. It would seem, therefore, that the method of government which would bring about the desired result would be one in which the controlling and controlled groups were in close cooperation and harmony with each other. The result to be attained would be understood by both groups and freedom of expression would be encouraged.

The question under consideration is what is the best government or rule for the nurses' home. Some form of student government is suggested.

Out of a large number of letters of inquiry sent to many of our representative training schools, it was found that only a small number of schools have an organized student government. A few have a limited form, but in the majority of schools the faculty decides all questions concernnig rules and regulations. In explanation of the latter fact, it is stated that the main reason for not establishing student government is that the student nurses do not want the trouble of it. Obviously, there is a reason for this, as the general complaint on the part of the student nurses is against arbitrary rule, and as in schools and colleges, student government is now the accepted form. There are probably two main reasons why student nurses do not desire the trouble of governing themselves.

First—Long hours of practical ward duty. In the majority of our training schools the hours for duty average nine and ten daily, with class and study hours added to these. The student nurse is therefore too tired to give time and thought to something not really demanded of her and is willing to accept the line of least resistance.

Second—The students fear responsibility and criticism. Due to the traditional method of government, they are unfamiliar with the entire problem.

In order that student nurses may desire to take the trouble incident to student government, the hours of practical fatiguing duty should be decreased. Obviously, this is also true for other reasons not discussed here. That the second excuse should be given is a reflection on the relationship which now exists between the faculty and the student body in our schools. The initiative should therefore be taken by the faculty.

To begin with at least a form of cooperative government should be established. A very close connection would then be formed between the two groups. Gradually, when a new spirit has developed, more and more responsibility could be given to the students, which, without doubt, they would desire. Such a board of control, or council, made up of the faculty of the training school and representatives of the student group, could study all questions pertaining to the life of the student nurse. Many things could be explained which are now not understood by the students as to why certain things are thought desirable and other things undesirable. The student, on the other hand, should be encouraged to present the point of view of the group. Many experiments would doubtless result, and personal opinion would of necessity become more flexible. The student representative should be carefully chosen and should be well informed as to the opinions they are expressing. Absolute freedom of thought without criticism should be encouraged. A new point of view would no doubt result on each side.

An objection made by many who do not approve of establishing student government in training schools is that the student nurses cannot understand the difference between schools of nursing and other schools, and that in the former the responsibilities are greater. The form of government described would soon place the student nurse in a position to understand. Instead of blindly accepting what she is told, she would believe in the traditions and principles of her profession, and would gladly do her part in maintaining them. It would not be long before these principles and ethical standards would be zealously guarded by the students and a violation of them would be

THE ART AND ETHICS OF NURSING*

IF my every wish would come true for you young women who are soon to leave us, I would wish good health. First, because good health is a foundation for faithful service and happiness. I would wish each one of you to be patient, tender, and sympathetic, because these qualities win abiding friendships. I would wish you a lively imagination, because without imagination you cannot put yourselves in the place of the sick man, woman, or child whose fretfulness might otherwise cause you to be impatient or fretful.

Many times I have emphasized the art of nursing as distinguished from the science of nursing. Science lays at your feet, facts, the knowledge of which is essential for your highest success; but science without sympathy will not make you friends or bring you success. I do not for a moment fear that you will fail in your profession for lack of scientific knowledge; although failure to grasp scientific facts might cause you to fail to pass a state examination. This would cause you humiliation and temporary distress, but a state examination will not test the qualities of mind and heart on which your real success will depend.

The art of nursing includes the art of making yourselves loved by those you serve; more than this, it includes the art of making yourself liked by the cook and maid who washes the dishes in the homes where you are called. The nurse's opportunity for making friends rivals that of the physician and, perhaps, even that of the clergyman. Your profession will bring you close to the deep mysteries of birth and death. The secrets and even the skeletons in the home closets may be open to your knowledge and sight. I trust it may never be said of one of you, as I once heard it said of a nurse, well trained in the science of nursing, "She knows symptoms and drugs and sick room sanitation, but she doesn't know the ethics of her profession, and—she talks too much."

I am not afraid that members of this class will talk too much, I mean talk in the sense of gossip. We agree that, "An ideal is the most practical thing in the world because it is a force behind action which must be reckoned with."

Our faith is that you will do credit to the best ideals of the profession of nursing which places the interests of a sick man, woman, or child first,—even before its own interests.

*Address to Graduating Class, City Hospital, Worcester, Mass., Jan. 6, 1920, by Charles A. Drew, M.D., Superintendent.

considered more of an offense by the students than by the faculty.

To what extent this form of government could be developed and carried on would depend on the individual school and the type of persons composing the faculty and the student body. However, there is no doubt that any government which has as its cardinal principles cooperation and justice is a better government than one which only arbitrarily makes rules, and demands the acceptance of them.

STUDENT SELF-GOVERNMENT

SARA E. PARSONS, R.N., Superintendent of Training School, Massachusetts General Hospital.

Self-government and faculty-government are synonymous with democracy and autocracy. The latter represents a primitive form of civilization, and is necessary when individuals are not highly developed in self-control or altruistic enough to place their neighbors' interests on a par with their own. Also, when some great concerted action is necessary for aggression or defense, as in the world war, the form of autocratic government conferred voluntarily by the people is necessary because there is not time for debate or compromise.

In schools for nurses, faculty government at best means an honor system, which doubtless secures loyalty to faculty laws on the part of all students who are susceptible to ethical appeal. It, however, leaves free those who are not sensitive to honor standards. At worst, faculty government degenerates to an espionage system, which makes it seem to the students fair play to circumvent the faculty, and which places the loyal student who conscientiously observes the rules in the false position of being a "poor sport"! If said student reports in the interest of school honor, she is then in the odious position of talebearer. Autocratic government is in many ways easier for both governors and governed. It is easier to act than to reason. It is easier to deal with people *en masse* than as individuals. It is easier to obey others than to assume personal responsibility for one's voluntary acts. The worst result of faculty government is the injustice unconsciously inflicted. We all know the unfortunate student who always gets caught if she does the least thing out of the way, and the so-called lucky persons who can successfully elude faculty eyes and ears all through her course. We also know that the faculty are always last to know what is matter for common gossip in a school. When some student is suspected or expelled from a school, we know how many times there is a storm of indignation on the part of her classmates, or, on the other hand, criticism because such action has not been taken earlier.

While I cannot say that student self-government in the Massachusetts General Hospital school for nurses is perfect, I do feel that it has done several things of value—for instance:

1. It has developed individual responsibility for community interests;

2. It has created a sense of honor toward a community ideal, contrasted with the selfish and popular idea of "standing by" one another, right or wrong, and thus avoiding personal unpopularity;

3. It has brought wrong-doing to the surface before it was too late;

4. It has given to the student body a comprehensive idea of student psychology, and a practical experience in government;

5. It has produced a better understanding between the faculty and students, and consolidated their interests.

The following incidents may illustrate my point:

A class of probationers, having passed their examinations, were about to be accepted into the school and, knowing we were about to organize self-government, elected a member of their class to tell me that one of their number was unworthy, according to their opinion, of being accepted. The reasons they gave were that she "cribbed" in examinations; took things from other probationers' rooms without permission, and that, in general, her social conduct marked her as unreliable in essentials.

In another instance, having heard that a first-year student was behaving indiscreetly, I conferred with the student council (composed of officers of Student Self-Government and two members of each class), asking them to investigate and make recommendations as to discipline. The result disclosed that members of the offender's own class and some of her co-workers had remonstrated with her and warned her concerning her unwise conduct. The council felt that she had had ample opportunity for reform, and that she was not essentially earnest about her work or sincere in her determination to conform to proper standards of social conduct. As the young woman had already been advised and warned by myself concerning her status in the school, she was asked to resign, and we were probably saved a more serious affair later on.

I have been asked how to stimulate interest in self-government among the students. I think I should not only state its advantages to the whole school, but should require them to appoint a representative council to confer with me concerning matters that pertained to the welfare of the student body. If the majority continued indifferent, I should begin student-government with the probationers, who are good soil in which to plant new ideas.

A superintendent may learn much from her students if she will confer with them seriously. Always some of them are women of experience and originality, and the faculty will do well to avail itself of the advice and support of the student body.

"PEP"

By GRACE G. BOSTWICK.

Vigor, vitality, vim, and punch—
That's pep!
The courage to act on a sudden hunch—
That's pep!
The nerve to tackle the hardest thing,
With feet that climb and hands that cling,
And a heart that never forgets to sing—
That's pep!

Sand and grit is a concrete base—
That's pep!
Friendly smile on an honest face—
That's pep!
The spirit that helps when another's down,
That knows how to scatter the blackest frown,
That loves its neighbor and loves its town—
That's pep!

To say "I will"—for you know you can—
That's pep!
To look for the best in every man—
That's pep!
To meet each thundering knockout blow,
And come back with a laugh, because you know
You'll get the best of the whole darn show—
That's pep!

American Magazine.

Dietetics and Institutional Food Service

Conducted by Lulu Graves,
Home Economics Bldg., Cornell University, Ithaca, N. Y.

TRAINING OF STUDENT DIETITIANS*

Dietitians are generally classified according to the branch of dietetics for which they are particularly qualified, as: Teaching, administration, social welfare, and dietotheraphy. Each of these requires a background of thorough training in home economics to which must be added graduate training along lines in which one wishes to specialize.

When criticism is made regarding the dietitian it is too often true that the distinction between these types has not been given, and a woman with teaching ability has been asked to assume a position requiring administrative ability, or vice versa. Again, the hospital may not be allowing the dietitian to assume the responsibility for which she is so well trained. However, I feel this last condition will very soon be remedied. In an article in The Modern Hospital about two years ago, Dr. Joslin stated that it was very noticeable that the more modern the hospital and the more up-to-date the management of the same, the greater the power of the dietitian; and it is a fact that in modern, well-organized hospitals, operating under a business-like management, an administrative dietitian has entire charge of the department of dietetics.

A great deal of the blame for the less desirable conditions is directly traceable to the training given to dietitians in the hospitals of the country. Some of the hospitals accept young women for training merely as a means of having skilled work done cheaply, with no real training being given. While much improvement has been shown in the last few years, we still have a long way to go and it behooves every dietitian to realize her teaching responsibility.

Individual Training in Dietetics

We cannot expect to have a standard training for these young women, as hospitals differ as much as dietitians differ. We need to train dietitians for these various hospitals. However, we can arrange matters so that the students graduating from the same type of hospitals will have approximately the same type of training. Unless you can give the students the necessary attention, do not attempt giving training. The training must be individual. If your hospital can only offer a certain form of training then have close cooperation with your schools of home economics and let the heads of these departments select young women best suited to the type of position for which you train. The training should be systematized in such a way that no time will be spent to disadvantage, and it should follow in logical order. The first month can best be spent in the office of the department, allowing the student to become familiar with the various branches, to know who the hospital officials are, and to know something of hospital etiquette.

They should have library privileges offered in the city and should have access to all the hospital offers in the way of books and journals devoted to subjects closely related to their work. They should have time to take advantage of civic opportunities. There should be a definite time each week for round table talks, either on the subject matter in the books and journals, or on the problems of the day. Do not expect them to relieve you of the necessity of having paid supervisors of the various branches of your department. You would, in this way, have twelve heads of each branch each year, and where would your system be? Do not require them to do clerical work or any detail work which can be done by someone else. It is very important that they be familiar with all details of office routine, but they gain nothing by doing this work day after day.

Adequate living quarters should be provided and attention paid to means of recreation for students. I think one reason for many dietitians, both graduate and student, remaining in hospital work for so short a time is because of lack of proper attention to these items. Given this attention, I am sure that the student dietitians will be the most loyal alumni your hospital can have, and the course will be a source of satisfaction to all.

*A digest of a talk given by MISS E. M. GERAGHTY, 1332 Forest Court, Ann Arbor, Mich., at the American Dietetic Association meeting, held at Hotel Gibson, Cincinnati, September 8 to 12, 1919.

COURSES OF INSTRUCTION FOR DIETITIANS

By KATHERINE FISHER, Teachers' College, New York City.

The war has taught the incomparable importance of education. It has also revealed to us the stern necessity for specific training. A recent writer has reminded us that "we used to think proudly of our educational system as a ladder from the kindergarten to the university. Our pride was humbled, however, when we realized that almost everybody fell off on the way up, that they fell hard, and found their feet with difficulty. The builders of the ladder did not think of vocation or livelihood. And you cannot in these days (the same writer asserts) get efficiency in anything without training." We might well add that in planning technical training courses today the special field of work must be constantly kept in mind. At the same time we cannot forget the inestimable value of providing the good broad basis that is expressed in trained intelligence, and without which practical knowledge will be of comparatively little value. All information is useful only as it is well proportioned, and a good academic education, either preparatory to such courses or woven into them, is really essential in securing the highest standards of work. It is also obvious that we must preserve a balance between the practical and the theoretical. One ranks no higher

than the other. Let us carefully consider these things in planning courses for our future dietitians.

Education and Experience Determine Training

The problem of vocational guidance is receiving much attention at present. Why not consider this in training our dietitians? You will all admit that the work of the dietitian carries with it heavy responsibilities, and that it usually involves an important managerial position. Native ability and the general fitness of students for such work should surely be major considerations. Some students may prove to be good technical workers but may never develop into competent administrators. Perhaps some enthusiastic member of this association will work out a series of tests along the lines of those used so successfully in the army to adequately measure the ability of the would-be dietitian. Some colleges have arranged a probationary period, but there is a danger of its developing into a mere form. In any event, the previous education and particular experience of the student will influence her training and future work. Practical experience in home management will prove a distinct asset, as a student who has had to grapple with real situations has a better basis for interpreting at least some of the work of a teacher, provided she has not taught too long, brings her teacher's attitude as a valuable experience and a good social background is always a decided advantage. The age of the student should undoubtedly be considered. The very young student is handicapped, not as seriously during her training as during internship, or later as an active dietitian. As a general rule, she is bound to lack that much needed maturity of judgment and poise, and the ability to supervise her employees, as well as the power to face emergencies without being nervously overtaxed. She may succeed very well in an assistant's position, but too often she is persuaded to accept a responsible position she cannot successfully fill. I always welcome to our ranks women who have had their initial experience in some other field, where demands upon their administrative ability have not been heavy, but where they have had a chance to develop more mature judgment.

Length of Course in Dietetics

All these things considered, what shall be the length of an adequate course for those who have had no previous training in general home economics work? I feel sure we all agree that a one year course gives a very meagre and narrow preparation. It cannot give time for developing facility in technique, or for a study of the related sciences so essential to a broad understanding of the work in hand. Again, the ambitious student may overtax her endurance in her desire to do justice to the work. Do you agree with me that two years is the minimum for a thoughtfully planned and carefully administered course for a group of capable students? As yet we cannot hope that all dietitians will be able to take advantage of a longer one.

If we follow the example of the enthusiast in vocational education and indulge in "job analysis," we may be able to decide more easily just what subject matter should be introduced into our training courses. What knowledge does the work demand? What are the responsibilities? To what extent should dietitians depend upon outside expert advice? Should we aim to merely give an appreciation of certain phases of the work, and should she acquire skill in carrying out the processes in other phases? These questions are even more pressing when the training of the administrative dietitian is being considered, as she is really specializing in administration and will not often be called upon to actually carry out many of the processes involved.

Home Problems, Basis for Study

A study of the problems of the individual home should undoubtedly form an introduction to the study of the activities of the institutional household, as far as the more technical aspects of the training are concerned. The historical back ground, too often lost sight of, should be presented and should also include a survey of the development of the institutional homes. I believe that this is conducive to the development of a more sound philosophy of work. As far as possible, the student should be prepared to appreciate the differences between the home and the larger household. On the other hand, the activities of these larger homes really lie in the old fields of women's endeavor and these new occupations for women "are only the old ones writ large." They represent the larger home, and can splendidly enlarge the individual home. Our students should understand the big essential things for which these institutions have been created, as they lie at the very root of human needs.

From the standpoint of economics the dietitian is a consumer on a large scale, and should therefore, be a keen and expert judge of all materials and supplies she uses. Markets and market conditions will demand her constant attention. I see no reason why, in many instances, she should not be her own buyer. Up to the present time we are aware that this has not always been one of her responsibilities or interests. Training courses should give attention to this.

Courses in Related Sciences

Undoubtedly, one of the most important considerations is the planning of courses in the related sciences. In planning these we must remember that we are not preparing teachers of chemistry, biology, physics or nutrition, and we should therefore not let our desire for an extensive training in science discourage the student who has splendid executive ability and other excellent qualifications, but who may not have a particularly scientific mind. On the other hand, it is expedient that we avoid a superficial training in science. We cannot have applied science unless we have science to apply, and we must not forget that our dietitians are usually called upon to teach dietetics. Our courses should therefore provide a very thorough training in nutrition. Above all, our instructors in these related sciences should make the work more vital by constantly making clear in an interesting way the specific application of science to every phase of the dietitian's work, whether it be a problem in sanitation, in food, or in equipment. Failure to do this is often the reason why some of our students sigh so sadly over their laboratory experiments, and why some are left with an attitude similar to that of one student who exclaimed to me in the early days of her course: "Is an ordinary everyday thing like baking soda a chemical!" Evidently that student had not a scientific mind, but she proved to be one of the best military dietitians serving in the hospitals of the allies, and faced emergencies sturdily, with splendid poise and an amazing resourcefulness. The end of any training is not mere skill or the acquisition of knowledge, but the ability to use this skill and knowledge in coping with new situations.

Studies in Sociology and Economics

Economics and sociology should find a place in our courses as the work has, of course, most important economic and sociological aspects. This would include a study

of modern labor problems as they may be related to the institutional household, a particularly important question, considering present day conditions. Employment management has become a large factor in industrial administration and it cannot be a matter of indifference to the future dietitian.

As the planning and supervision of the work of others is one of the major duties of our dietitians, a study of the principles of modern forms of organization and administration as they apply to her future management problems, should find a place in the latter part of the course. Again, she will have more or less responsibility in regard to accounting and business methods, and should therefore, be acquainted with at least the general principles of this phase of her work.

But Rome was not built in a day, and neither was any training course ever intended to produce competent dietitians, veritable encyclopedias of knowledge, with nothing further to learn! There are many, many things we can only learn through experience, guided in the beginning by sympathetic and intelligent supervision. This really brings us to the question of practice fields for the pupil dietitian, or internship or apprenticeship; but this is being discussed later. Just let me say, however, that I hope we will decide in the near future that any course, whether it be two, or four years in length, should not be taken in consecutive years or semesters. Could our students not go out into the field for one or more periods during their course, as well as at the end of it, and there under wise supervision gain practical experience? Many colleges have these fields right in their own dormitories and dining rooms. I am decidedly opposed, however, to such field work being attempted while the student is carrying the average school or college program. The majority of colleges offering courses are permitting students to undertake field work in addition to a full program of class room and laboratory work, but I trust that this arrangement will give place to one where the student has almost her entire time for field work during a given period of at least from three to four months. Such a plan would surely put new life into our training courses, and incidentally challenge our instructors to likewise seek experience in the field from time to time. I would be glad to see this field work given definite college credit. Our courses would be modified by such a system of internship. Many things which we now struggle to teach in the class room could be taken care of in the practice field. To give one illustration: there are many reasons why large quantity cookery cannot be well taught in the college laboratory.

This association had undoubtedly a definite responsibility concerning the development of adequate training courses. Every active dietitian should cooperate as closely as possible with colleges offering such courses, studying particularly the question of intelligent supervision of field work. Instructors should acquaint themselves with conditions in the various types of institutions, particularly those instructors whose subjects are more directly related to the work of the dietitian. I have not attempted to discuss any difference that might exist betwen the training of the administrative and the laboratory dietition, but that is hardly possible within the limits of a short paper.

THE TEACHING OF MEDICAL DIETETICS

By LOUIS BAUMAN, M.D., Presbyterian Hospital, Columbia University, New York City.

It was largely because we were impressed with the scarcity of information and the future possibilities of the subject that instruction in medical dietetics was undertaken several years ago at the State University of Iowa. With the advice of Professor Ruth A. Wardall and the active cooperation of Miss Margaret Sawyer, a course was planned which was divided into three periods. The present state of our knowledge of this important matter is well discussed in one of our recent text books.

I assume that there are many here who have never become interested in the medical aspects of this subject. Permit me then to digress a moment to emphasize some of the more important applications of dietetics to medicine. First, the subject of infant feeding. I wish Professors Daniels and Wheeler would tell us of the many problems that await the dietitian in this field. From my own short experience and interviews with specialists in this line I gather that the subject has been made unnecessarily complex by men who have entered the field without proper training in physiological chemistry and the chemistry of the foodstuffs. What seems to be required is simplified and rational feeding, both for the normal and sick child. Here the matter of antiscorbutic and growth promoting vitamines is important as well as the proteins, fats, carbohydrates, and minerals. The attention of pediatricians has centered on the problem of infant feeding, while relatively little has been done with the diets of older children. At any rate it seems that a deplorably large percentage of our school children are underfed.

In the treatment of diseases of the alimentary canal, diet plays a leading role. Here, as in all other pathological conditions, it is essential to know what functions are at fault, and to order the diet accordingly. Some information may be obtained by studying the chemical and morphological characters of the feces and test meals withdrawn from the stomach during digestion. The many contradictory statements to be found in the text books indicate that our knowledge of the treatment of diseases of the alimentary canal is far from complete. In disease of the kidney one or all of the important functions of this organ may be disturbed, viz., the removal from the blood of urea which results from the metabolism of proteins, sodium chloride, and water. In prescribing a diet we aim to decrease the amount of salt and protein to as low a level as necessary, and rely more on carbohydrates and fats to supply the necessary energy requirements.

Perhaps there is no disease in which diet is more important than diabetes, a condition characterized by the decreased ability of the body of oxidize carbohydrates. In this condition it is necessary to determine how much carbohydrate the patient can utilize and to arrange the diet accordingly. Gout is a disease associated with a retention of uric acid. Uric acid is an oxidation product of the purines which form part of the nucleic acid molecule present in every cell nucleus. It is therefore important to furnish a diet poor in cells, the so-called purin poor diet. The treatment of typhoid fever was greatly improved by the introduction of the high calorie diet by Doctors Coleman and Shaffer. They found that the fever and toxaemia greatly increased the energy requirement of these patients. The importance of this matter had previously been underestimated. By increasing the ingestion of food, starvation is avoided and recovery is more apt to occur without the extreme emaciation which we had been in the habit of seeing. I am quite sure that there would be no difficulty in finding a number of other diseases in which diet plays a leading therapeutic role.

A word or two with regard to the prospects of dietitians. There is an increasing demand for them, both in hospitals and private practice. One of the University of Iowa graduates is to be associated with a specialist in metabolic diseases, and will look after the dietetic requirements

of his patients, as well as his private laboratory. Another specialist has the dietitian visit his patients to instruct them in the preparation of their meals. At any rate, thus far the demand has exceeded the supply. I am sure that the association of dietitian and physician will be to the advantage of all parties concerned.

Acid Production and Neutralization

The chief research problem which was studied in connection with the course had to do with acid production and neutralization in the human body. The acids which are constantly being produced are sulphuric, phosphoric, hydrochloric, acetoacetic, hydroxybutyric, and lactic. The organic acids are oxidized to a large extent except in abnormal conditions where fat is being extensively or exclusively oxidized, as in diabetes; then they may accumulate in the organism and actually overwhelm the supply of reserve bases which are available for their neutralization. The mechanism for combating acidosis, as it is called, is about as follows: the acids first react with sodium bicarbonate which is present in the blood plasma, thus liberating carbon dioxide; this is brought to the lungs by the circulating blood and removed by expiration; the supply of bicarbonate is replenished by the conversion of alkaline phosphate (Na_2HPO_4) into acid phosphate (NaH_2PO_4), thus liberating one atom of sodium; the former is present in the blood and tissue cells; the excess of acid phosphate enters the plasma and is excreted by the kidneys in the urine. If this mechanism is insufficient an emergency neutralizer is at hand, namely, ammonia. Normally it is probable that all of the nitrogen excreted as urea goes through the stage of ammonia, but the liver and other tissues convert this somewhat toxic base into the relatively inert carbamide or urea. In the event of an acidosis, ammonia is diverted for use as a neutralizing agent. In addition to sodium and ammonium, other bases such as calcium and magnesium may function as neutralizing agents.

Other Neutralizing Agents

It was this phase of the subject which was studied in our research. The observations were made on two male children, aged five and eight years respectively. During the preliminary period they received similar quantities of egg albumin, egg yolk, milk, pure sucrose, pure lactose, sodium chloride and agar; during the following period the pure sugars were replaced by pure butterfat. The mineral calorie and nitrogen content of the diets were identical during both periods. During the second or high fat period there was a pronounced acidosis due to the formation of hydroxybutyric and acetoacetic acids, and a marked loss of calcium. In fact the calcium served to neutralize more acid than the ammonia, thus showing that even during a short period of acidosis a considerable loss of this important element may occur. As was pointed out, this loss was derived from bone. Another problem which was studied was the varying susceptibility of children to acid producing diets. It was found that the response was a variable factor among the different children and that certain ones were extremely susceptible. This was an experimental verification of a clinical observation. Children susceptible to acidosis often develop a severe, and occasionally a fatal condition following even the most trivial surgical procedures. Of late the intravenous injection of concentrated glucose solutions has been advocated in this condition and used with prominent success, so that the surgeons should gradually overcome their fear of this spectre.

The last investigation is still unpublished. It was undertaken to test the effect of the administration of alkali on the symptoms and acetone body production in experimental acidosis. The increased acid production was brought about as usual by feeding a relative excess of fats during two periods. During the first period alkali (sodium bicarbonate) was administered; during the second it was withheld. Our results thus far indicate that as far as the symptoms and the total quantity of acids are concerned, there is little difference; in fact it seems that alkali actually acts unfavorably, as far as these two factors are concerned. It would appear that the serious symptoms are due to the toxic effect of the acids formed, rather than to their neutralizing action.

A great amount of the actual laboratory work, and all the dietetic work that was necessary for these experiments, was carried out by the students.

THE RELATION OF THE PHYSICIAN TO THE DIETITIAN*

By DR. ELIZABETH CAMPBELL, Cincinnati.

The medical mind of today is grasping opportunities and seizing hold of all possible avenues leading to the successful treatment of disease, which, not many decades back, would have been thought unworthy of attention. Along with the frock coat and high hat of the correct and stately physician, and the carriage drawn by the finely matched team controlled by the liveried groom, has been put aside the idea that medicine is encircled with a charmed ring out of which a doctor may not step. He has emerged a human being moving among his fellows as a co-worker.

The austere aloofness which has for many years marked the attitude of physicians toward nurses, is gradually melting away as the allied professions dealing with practical details of caring for the sick, are moving on to the perfection of scientific attainment. This is rapidly winning for them a place in the medical field.

The idea that the trained nurse, or in the younger profession, the trained dietitian, should be denied the knowledge of the "reason why," and kept as a mechanical tool, has given way to the present highly trained product of schools of nursing and dietetics, with whom the modern physician delights to counsel.

Rarely do we find now, an example of the older type of physician who expected merely blind obedience—unless perchance it occurs among the white coated interns—who have still to find the blessings of humility. There is no team-work so efficient, none so beautiful as that of the physician and the nurse who fight the spectre of disease with mutual understanding and consequent increased skill.

It is a source of surprise to the unthinking how great is the difference between these professions. Many women who wish to study medicine assert that they will take the course in trained nursing first, and are amazed when told that such a course not only affords no preparation, but is a positive draw-back to medical research. The nurse or dietitian approaches the problem presented by a patient from a totally different angle from that of the physician. While this is true, a seeming paradox arises from the absolute interdependence of physician and the skilled workers in the practicalities of ward or sick room. The fundamental requirements, and later, the actual difference in the work, makes for the absolute isolation of the professions. At the same time, a most fascinating opportunity is afforded for the closest possible co-operation.

*Read before the American Dietetic Association, Cincinnati General Hospital, September 11th, 1919.

We approach the problem of the relation of the doctor to the dietitian from the four standpoints of the patient, the dietitian, the hospital and the doctor. The patient enters the door of the hospital with the feeling that here will be found the best regimen known to science for the cure of disease. The first disillusionment comes when the food is served. A wit among preachers once said that the Devil entered the church through the choir. There is no doubt that his Satanic Majesty enters the hospital through the kitchen.

Dietetics has reached a high plane of scientific attainment. The trained dietitian is ready. She is armed with the knowledge of what food will or will not do. She knows food values. She longs to feed a typhoid by calories. She is prepared to feed the diabetic, or the marasmic babe. She knows the food which raises or lowers blood pressure. She is trained in methods of alkalization. She, too, enters the hospital with high hopes that here she may be allowed to put her knowledge to the test of practical service. Her disillusionment also comes. She finds in the great majority of hospitals that her job is serving food, palatable if possible, enticing in appearance if she has time to make it so, but the sine qua non is that it must be cheap. She finds foods divided into "fluids", "light" and "full" diets, with an occasional request for special trays for some fretful patient who imagined that, food served in a hospital was of definite value, for a definite purpose, and insists upon having at least her idea of a hospital tray.

Through a dull round of routine, the trained dietitian is forced into the mere stupidity of earning her living or else she goes elsewhere in search of some Elysium where she may use her equipment.

And why the dissatisfied patient? Why the disappointed dietitian? Why has the Devil entered the hospital through the kitchen? Unquestionably the blame is to be laid at the door of the doctor.

The life of a practising physician is an open book. It is everywhere recognized as the most compelling, the most insistent, of the professions. Without the limit of either time or space the physician works at all hours and from many different centers. The life is one of the expected unexpected. It is also compelling from the angle of intellectual vantage ground. During long hours of actual work the medical man or woman must gather the march of events in the laboratories, must sift the real from the false, must take quickly of all that is valuable and use it definitely for the good of the patient. What time has this busy individual to look into the affairs of a hospital kitchen, or to do more than to demand that his patient be well treated. Probably no question is so often on the lips of the sick as, "What shall I eat?" And undoubtedly no question is so badly answered.

In so many instances the physician knows that half the ills of the stomach come from the conscious eating of food, that it is easy to advise that the act be relegated to the subconscious. Very seldom does this procedure work out. Usually the patient feigns resignation, but keeps up a nightly thinking, and becomes a devotee of Eugene Christian, Fletcher, or some other cult.

Diet Prescriptions

The diagnosis once made, and the program mapped out, would it not be infinitely more satisfactory and productive of greater success if the physician treated the matter of feeding with the serious consideration that it deserves? It is too much to expect that in the busy round of the day's tasks the complex problems of exact feeding can be given adequate attention, and just at this point has arisen the trained dietitian, ready to fill the doctor's food prescriptions with just as much skill as the pharmacist prepares his medical formulae.

The one great law of nature that use insures growth and preservation, and prevents rust, is most applicable here. This paper is not dealing with food values and all the most fascinating dietetic discoveries in recent research, but is a plea for prescription diets, in order, *first*, that the patient, (who by the way is sometimes overlooked in hospital management) may have the advantage coming from team-work; *second*, that the dietitian with all her wonderful possibilities be not allowed to rust; *third*, that the doctor may have the added pleasure of working more scientifically, and with infinitely less care, because standing ready to give intelligent co-operation is the youngest of the allied professions; *fourth*, that the hospital may obtain the two things for which it is eternally seeking—efficiency and economy.

When the laboratories began to put forth some doubt as to absorption of egg-white through the alimentary canal, I heard a head nurse enter a lament as to the fate of the hundreds of thousands of albumens which had been poured down "the little red lanes," and conjecture what could have been done with the money thus expended. All of us have seen the hospital trays come and go untouched, or possibly only a small part devoured, and often have we wondered how such waste could be prevented.[1] Again we turn to the physician.

Intimate Medical Staff Needed

A well ordered, *intimate* medical staff knowing the problems presented by the hospital management, knowing each other, taking cognizance of medicine as a whole, rather than the narrow confines of specialized branches, can make the hospital an institution renowned for its thorough understanding of group medicine, and team-work with its nursing and dietetic professions; or can condemn it to remain in a place where the wheels go 'round, but the cogs do not fit—a machine not geared to the great modern highway of medicine.

The one great point to emphasize is the word *intimate*. The staff must weld itself into solidarity if it expects to influence the hospital. The surgeons must cease to shrug their shoulders at the so called hobbies of the internist. Many a fine impulse and a great desire to do a fine bit of work, is killed by nonchalent ridicule. The internist must not forsake the operating room, and must keep in touch with post-operative procedures. Above all things again we emphasize the word *intimate*. A hospital staff should be willing to sit up at night with the various problems, and learn to know each other so well that such problems can be discussed with utmost freedom, and conclusions reached, can be carried to the management, with the force of unity.

A united staff should ask, and I doubt not, will receive, a trained dietitian, separate and distinct from the household economist who runs the great kitchen. This dietitian should be the friend and adviser of the physician. The medical profession gives her its confidence and accepts her as a co-worker, interested in a program for the proper feeding of the sick. She is not to be a kitchen-god, hidden away in the remote recesses where dwell the pots and pans. She is on the floors of the hospital, she has the run of all important feeding cases, and is properly interested in the charts and general management. She meets

[1]This department of medical work should be cared for by prescription. The cost of feeding would then be minimized, the labor would be more accurately divided, and above all, the patients would receive the double benefit of being trained in food values, while being relieved of their ills. The psychology of the institution would be immensely improved, as imagination, contentment and hope resides in the alimentary canal of the majority of patients.

and talks with the doctor and is ready with suggestions if she feels that they are timely, and that she will not receive a "mind-your-own-business" attitude.

The whole matter may be summed up in the inevitable results of supply and demand. If physicians demand dietitians, they will certainly be forthcoming, and if they accept them as members of an allied profession the relation of the one to the other, will be definitely determined.

NEWS ITEMS—MAY, 1920

Miss Helen Borneman, State College, Pennsylvania, Class of 1918, has gone to the Children's Hospital of Akron, Ohio, as dietitian.

Miss Katherine Haggerty left the Naval Hospital at Newport recently and is now at the Fordham Hospital of the Bellevue and Allied Hospitals group, New York City.

Miss Lydia Humphreys, formerly dietitian at the University Hospital, Augusta, Ga., has taken charge of the combined main kitchen and diet kitchen at Hamot Hospital, Erie, Pa.

Miss Carrie Luce, who has been helping Dr. Janney in his metabolism ward in Santa Barbara, Cal., was compelled to give up her work on account of ill health. She is at her home for the present.

Miss Eleanor Jean Stanchfield, B.S. of the 1919 class of the University of Wisconsin, has been appointed dietitian in the Nurses' Home of the Johns Hopkins Hospital to succeed Miss Janie C. Foster.

The following report of changes in the dietary department of Johns Hopkins, and items of interest regarding women who have taken student dietitian training there, were furnished by Miss Agnes O'Dea, head dietitian. What a pleasure it would be to all of us if more dietitians would tell us what they are doing, either personally, or in their departments.

Miss Margaret Prendergast has been appointed dietitian of the Hebrew Hospital at Baltimore to succeed Miss Anthos Nesbit who has become dietitian of the Mount Sinai Hospital, Philadelphia. With Miss Prendergast is Miss Phyllis Rowe who has recently finished her pupil dietitian course at Johns Hopkins. Miss Rowe has charge of the diet school and the serving of the trays in the ward.

The proceedings of the meeting of the American Dietetic Association in Cincinnati are now ready for distribution. Besides the proceedings of the meeting, this publication includes the by-laws and constitution of the Association, a brief history of the organization, and a list of the members. Copies may be secured from the secretary, Miss E. M. Geraghty, 1332 Forest Court, Ann Arbor, Mich., for $1.00 each.

Plans for the Annual Meeting of the American Dietetic Association are well under way. This meeting is to be held at the McAlpin Hotel in New York City, October 25-27. It is most essential that membership dues be paid at once and that applications for membership be given prompt attention in order that the Executive Committee have, as nearly as possible, an accurate membership list with which to work while formulating these plans.

Miss J. Ernestine Becker, B.S., Cornell University, 1918, takes the place of Miss Ella Shoemaker whose marriage takes place in March. Before coming to the Johns Hopkins Hospital, Miss Becker was dietitian at the Infants Summer Hospital, Rochester, N. Y., and later was employed as an assistant in the Home Conservation Division of the Food Administration during the war. Both Miss Becker and Miss Stanchfield received their training as pupil dietitians at the Johns Hopkins Hospital.

"THE AMERICAN PLAN"

Dr. David Lyman, who during the war was in charge of the organization established by the Rockefeller Foundation and the Red Cross to demonstrate the American plan for dealing with tuberculosis, initiated an interesting procedure in France as a part of the "American Plan."

Cases were brought to his attention of tuberculous patients who could neither be properly cared for at home, nor spared from the home for extended treatment in sanitariums. One case of this sort was that of a little French boy, a delicate child in a tuberculous family. He needed eggs and milk, and as his family could not pay for these, the American organization furnished the food as a part of preventive medicine.

The French approved the action but felt that it would be impossible for them to establish such a precedent—they could never spare the money. Dr. Lyman replied that it was cheaper for them to do this than to let the child get tuberculosis, and care for him afterward.

Then the "American Plan" began to interest the French.

In another case the patient could be cared for at home if a room were available where she could sleep and get plenty of fresh air. Of course there was no such room in the poor cottage, so Dr. Lyman had one built onto the little house. In answer to the amazed questioning of the French, Dr. Lyman answered that it was cheaper to do this than to let the family contract the disease, and have to care for them all in a sanitarium.

The French became more interested in the "American Plan."

When Dr. Lyman arranged for the Tuberculosis Organization to support the family of a patient while he was in a sanitarium, the French again doubted. They were reminded that this was a less costly procedure than letting the man die and supporting the family until the children grew up.

The French, now quite convinced and most enthusiastic, eagerly planned to come to America after the war to see the plan in operation. And Dr. Lyman is wondering just where he will take them to show them the "American Plan" in full swing.

SAN FRANCISCO'S TUBERCULOSIS PROBLEM

George H. Evans in an article entitled "The Tuberculosis Problem in San Francisco," appearing in the March issue of the American Review of Tuberculosis, describes the present tuberculosis situation in San Francisco, at the end of the first decade of organized effort to combat the disease. He summarizes the work performed during this period. The city has been backward in the development of open air schools, though climatic conditions are peculiarly adapted to these. Hospital facilities for from 250 to 300 cases are provided in the tuberculosis departments of the San Francisco Hospital, but this number of beds is only 25 per cent of those needed for the care of advanced cases. The segregation of advanced cases is far from a satisfactory solution of the problem and has thus far entailed much economic waste. The sanatorium problem is also as far from a solution as ever, as the Board of Supervisors has been slow to provide an appropriation for the erection of an institution. The death rate, however, has fallen from 208.9 for the years 1906 to 1910 to 193.6 for 1916. In general there has not been the proper correlation of the various medical and social agencies, and no adequate plans exist for the aftercare of the sanatorium patient.

Knowledge is just like the sun in the heavens, inviting us to noble deeds and lighting our path.—Harvey.

American Hospital Association Official Bulletin

Issued by the Executive Secretary
ANDREW R. WARNER, M. D., Executive Secretary
407 Lennox Building, Cleveland, Ohio

AMERICAN HOSPITAL ASSOCIATION SERVICE BUREAU ON DISPENSARIES AND THE COMMUNITY RELATIONS OF HOSPITALS

The Service Bureau on Dispensaries and the Community Relations of Hospitals has been organized under the authority of the trustees, and is now actively at work. Mr. Michael M. Davis, Jr., director of the Boston Dispensary, has been appointed chief of the bureau. Mr. Davis is well known to the members of the American Hospital Association for his work on dispensaries. During the last few years he has traveled extensively over the country studying hospitals, as well as dispensaries in many communities.

The Bureau aims to be of practical use to members of the American Hospital Association under the conditions stated below.

Scope of Bureau

The subjects covered by the work of the Bureau include:

(1) Community Relations of Hospitals:

The amount of hospital service and the kinds of hospital service needed by a community, with special reference to the establishment of new hospitals or the enlargement of existing ones, or to changes in kind of service rendered; the relationships of hospitals to health departments and to other municipal, private health, or charitable agencies; the relations of hospitals to the public, as regards publicity work and financing.

Matters of construction, equipment, or internal administration of hospitals are not included within the scope of this Bureau.

(2) Dispensaries:

The planning, organization, equipment, and management of dispensaries; dispensary record keeping and financing; efficiency studies of dispensaries.

Study of the need of a community or district for dispensary work; amount and kinds required.

(3) Social Service:

Organization, activities and management of Social Service Departments in hospitals or dispensaries.

How Bureau Service Is Rendered

1. By correspondence.

2. By personal conference with the chief of the bureau or a member of its staff.

3. Investigations or surveys of institutions or of communities will be made by the Bureau, with reports and recommendations.

Besides answering inquiries received by mail through the offices of the Association or otherwise, the Bureau is now making a survey of several hospitals in Philadelphia, and has in hand requests from several other institutions and communities for advice and field investigation along one or more of the above lines.

Money has been contributed to the American Hospital Association sufficient to finance *a national study of hospital social service.* The president of the Association, Dr. Joseph B. Howland, has appointed a committee to take charge of this study, in connection with the Bureau, as follows:

Michael M. Davis, Jr., chairman, Boston Dispensary, Boston, Mass.

Miss Ida M. Cannon, Social Service Department, Massachusetts General Hospital, Boston.

Miss Lillian Clayton, president National League for Nursing Education, Philadelphia General Hospital, Philadelphia, Pa.

Miss Ruth V. Emerson, director Home Service in U. S. P. H. S. hospitals, American Red Cross, Washington, D. C.

Dr. S. S. Goldwater, superintendent Mount Sinai Hospital, New York City.

Miss Edna Henry, president American Association of Hospital Social Workers, Indianapolis, Ind.

Miss Mary Jarrett, Psychopathic Hospital, Boston, Mass.

Mr. Porter R. Lee, director, School for Social Work, 105 East Twenty-second Street, New York, N. Y.

Dr. James A. Miller, 379 Park Avenue, New York, N. Y.

Rev. Father John O'Grady, Catholic University, Washington, D. C.

Mr. Fred M. Stein, chairman Social Service Committee, Federation of Jewish Charities, 50 East Forty-first Street, New York, N. Y.

Miss Katherine Tucker, president National Organization for Public Health Nursing, Philadelphia, Pa.

Miss Mary Wadley, Social Service Department, Bellevue Hospital, New York, N. Y.

Dr. Frankwood E. Williams, assistant secretary, National Committee on Mental Hygiene, 50 Union Square, New York, N. Y.

Dr. Joseph B. Howland, president, American Hospital Association, *ex officio,* Boston, Mass.

Dr. A. R. Warner, executive secretary, American Hospital Association, *ex officio,* Cleveland, Ohio.

The committee has engaged as field secretary, Anna M. Richardson, M.D., of New York. During the next few months she will visit a selected number of the chief cities in which hospital social service is carried on. Information will also be gathered by correspondence. The scope of the study is to include the functions and organization of social service in hospitals and dispensaries, the per-

sonnel of existing social service departments, and the training of workers for this special form of service in medical institutions.

It is expected that a report will be made by the committee at the next convention of the American Hospital Association during the first week of October, in Montreal.

How to Secure the Services of the Bureau

Information or advice on any of the subjects mentioned above will be furnished by the Bureau to any institutional or personal member of the Association.

There is no charge to members for any service rendered through correspondence.

When the service desired includes not only correspondence but personal visits of the director or a member of the staff of the Bureau, and surveys or field investigations, a charge will be made to institutional members to cover the actual cost to the Association, not figuring in any overhead expense. The total cost to members would thus be substantially less than the usual expense of such services.

Non-members of the American Hospital Association may secure the services of the Bureau, but must pay a higher fee to include overhead expenses.

Inquiries may be addressed to the executive secretary of the American Hospital Association or directly to Mr. Michael M. Davis, Jr., 25 Bennet Street, Boston, Mass.

SERVICE BULLETINS TO INSTITUTIONAL MEMBERS

In the past month service bulletins have been issued to institutional members on the following subjects: Canned Fruits, Sale of Surplus Navy Provisions, Tax Free Alcohol, The Use of Alcoholic Liquors by Hospitals, Service Bureau on Dispensary and Community of Hospitals, and Canned Vegetables.

It has required considerable effort to get together the information contained in these bulletins and verify it in detail, but it is the policy of the association to use this office for this purpose, *i. e.*, to dig out useful information which will be of value to hospitals and to distribute it. These bulletins are carefully prepared, read by several persons to develop clearness and eliminate all possibility of misunderstanding, and every statement however much in detail is verified from competent authority on that particular subject. These bulletins, therefore, do not represent simply the ideas of the executive secretary or any other person, and all statements made therein can be fully depended upon.

CHICAGO OFFICE AND CHANGE OF ADDRESS

On May 1st the office and business address of the association will be transferred to 22 East Ontario St., Chicago, Ill., in the building recently purchased by the Modern Hospital Publishing Co. The two upper floors of this building will be used as editorial and business offices of The Modern Hospital. On the ground floor will be the offices of the American Hospital Association and the offices of a combination of Catholic hospital interests. The building contains on this floor a very large (25x32) room beautifully and fully equipped as a library, together with some other spaces. It is the hope and plan of several interested persons to develop this as a Library and Service Bureau for Hospitals with the support and backing of various hospital organizations and others interested, that hospitals may obtain from here data and information regarding any of its lines of activity.

This building is located about one block from the building purchased by the American College of Surgeons which will soon be the permanent headquarters of this organization. It is also quite near the home and offices of the American Medical Association. The location, therefore, has many advantages.

THE HEART MUST BE SAFEGUARDED

An editorial in the January issue of the *Indianapolis Medical Journal* calls attention to the fact that in the largest cities of the United States the death rate from heart disease is greater than that from tuberculosis. "During one year in New York there were 10,682 deaths from heart disease, and from all forms of tuberculosis 9,622. Since we hear of cancer being like a holocaust it might be mentioned that there were 4,702 deaths from this disease."

The article warns that the time for conservation is when the disorder is functional and amenable to treatment. Rheumatism as a cause, and stimulating beverages in the rôle of predisposing factors are to be considered.

Advance comments on the report of the census state that the deaths from organic diseases of the heart numbered 124,668, or 152.3 per 100,000 population. The death rate from this cause shows a slight decrease as compared with 1917, when it was 153.2 per 100,000. There have been fluctuations from year to year, but in general there has been a marked increase since 1900, the earliest year for which annual mortality statistics were published, when the rate for organic diseases of the heart was 111.2 per 100,000 population.

The importance of conservation in heart cases is indicated by these figures.

GIVE DISABLED MEN ADVICE AS TO FUTURE WORK

Disabled men applying for training from the Federal Board for Vocational Education often have very impracticable ideas as to the work they wish to undertake. Great care is taken by the Board that the feelings of the men are not hurt. Suggestions are made for another kind of training, and in nearly every case the applicant is pleased.

One veteran contracted tuberculosis while in the service. His request for medical training, covering a four years' course of confining study, would simply kill him, so he was shown the necessity for fresh air, and picked something for which he was fitted.

Another veteran will always limp as the result of a German bullet in his leg. His proposition to exchange the money value of his training for a pair of mules to plow his farm shows that he has a head for business, but the Board is not given authority to swap mules or any other kind of live stock for vocational training. Naturally the veteran is disappointed when acquainted with this fact, but he is offered such a tempting course of training that he cannot help but see that the mules he asked for today will be dead or broken down when he has finished the training that will insure his ability to buy mules by the hundred.

Health lies in labor, and there is no royal road to it except through toil.—Wendell Phillips.

You hoard not health for your own private use,
But on the public spend the rich produce.
—Dryden.

DISPENSARIES AND OUT-PATIENT DEPARTMENTS

Conducted by MICHAEL M. DAVIS, JR.
Director, Boston Dispensary, 25 Bennet St., Boston

NEW YORK DISPENSARIES: MEDICAL ORGANIZATION*

A section of Report made by the Public Health Committee of the New York Academy of Medicine on the New York Dispensaries.

(a) Total number of physicians working in dispensaries of New York City and amount of service rendered.
(b) Compensation of physicians in out-patient departments.
(c) The development of special clinics.
(d) Public health centers.
(e) Pay clinics.
(f) The Workmen's Compensation Act in relation to dispensaries.
(g) Home visiting medical service.
(h) Laboratory and x-ray service.
(i) The nurse in the dispensary.
(j) The dietitian in dispensary work.

Institutional Affiliations of Physicians

(a) *Total Number of Physicians Working in Dispensaries of New York City and the Amount of Service Rendered.*—In order to ascertain exact figures relative to institutional affiliation of physicians, the dispensary and hospital associations of every physician in New York City have been analyzed, and the accompanying table is a succint presentation of prevailing conditions.

Twelve and six-tenths per cent of the total number of 7,966 physicians of Greater New York have none other than dispensary affiliations, one-fourth of those serve in more than one dispensary. A similar number, 12.8 per cent of the total, are connected with both a hospital and a dispensary; while 26.2 per cent of the body of physicians have only hospital associations. The remaining 2,863 physicians, or 48.5 per cent of the total, have no institutional affiliations of any kind.

In the borough distribution of institutional affiliation, Manhattan and the Bronx stand highest, being above the average in every type of affiliation, while in boroughs of Queens and Richmond, with a small number of hospitals and dispensaries, make the poorest showing.

(b) *Compensation of Physicians in Out-Patient Departments.*—The question of whether or not dispensary physicians should be paid is an insistent one. The tendency at the present time is toward the payment of small salaries, not primarily with the idea of adequately reimbursing physicians for the time and effort spent, but rather as an honorarium or recognition of the physician's service and in order to give the administrative authority of the dispensary a control which it is otherwise difficult to maintain. The physician as a paid employee recognizes a more definite responsibility toward his dispensary work than does the unpaid physician. This is the unanimous opinion of dispensary executives who have had experience with both paid and unpaid medical service, and the records of attendance of physicians in those dispensaries where salaries are paid conclusively prove this statement.

Few Have Salary Schedule

Only five of the institutions studied have a definite salary schedule which applies to all physicians. In the Lincoln Hospital Dispensary chiefs of clinics and first assistants receive $15 and second assistants $10 a month. In the Ruptured and Crippled Hospital Dispensary, chiefs of clinic receive $50 a month and assistants $25. In the New York Orthopedic Hospital Dispensary, attending surgeons receive $83.33 a month, and assistant attending surgeons $50.

INSTITUTIONAL AFFILIATIONS OF THE PHYSICIANS OF NEW YORK

Borough	No. of Phys. Connected with one Disp.	No. of Phys. Connected with more than one Disp.	No. of Phys. Connected with hospital and Disp.	No. of Phys. Connected with one or more hospitals.	No. of Phys. with no hospital or Disp. connection.	Total number of physicians
Manhattan and Bronx	571	189	735	1,370	2,629	5,493
Brooklyn	172	47	262	584	1,054	2,119
Queens	15	4	16	101	142	278
Richmond	3	..	5	30	38	76
City of New York	761	240	1,018	2,085	3,863	7,966
Manhattan and Bronx	% 10.4	% 3.4	% 13.4	% 25.0	% 47.8	% 100
Brooklyn	8.1	2.2	12.4	27.6	49.7	100
Queens	5.4	1.4	5.8	36.3	51.1	100
Richmond	4.0	...	6.6	39.5	49.9	100
City of New York	9.6	3.0	12.8	26.2	48.5	100

*This is the second chapter in a series of four chapters taken from this report because of their special interest to dispensary and hospital executives. Chapter 1, "Organization, Administration, and Equipment of Dispensaries," was published in two parts, Part I in the February issue, Part II in the March Issue.

In the New York Dispensary attending physicians receive $33.33 and $50 a month, depending on the number of hours of service. In the New York Hospital, chiefs of clinic receive $25 a month, other principals (not chiefs) $16.66, and the remainder, $8.33.

In the institutions in which teaching is an essential feature of the dispensary program, the dispensary physicians who are also members of the teaching staff of the school are paid, but payment is for their services as teachers rather than as dispensary workers, and varies widely, depending on the amount of teaching work required and their rank on the teaching force.

In certain other dispensaries salaries are paid for special services. In the Presbyterian Hospital the chief of the tuberculosis service receives $1,000 a year and his assistant $500, and in the dispensaries of the Bellevue and Allied Hospitals group, physicians in tuberculosis work receive $600 or $300 a year, depending upon their work. In the Brooklyn Dispensary three physicians of the orthopedic clinic are paid $25 a month each. In several institutions the physicians doing refraction work are specially paid. The district physicians at several of the dispensaries who make home visits and hold consultations at the dispensary are paid at varying rates. The medical director of the Demilt Dispensary and the Brooklyn City Dispensary receive $1,500 a year each, as does also the physician-in-chief of the New York Dispensary.

It would perhaps be impossible to fix a standard salary schedule for dispensary physicians, owing to the fact that there is no standardization of responsibility which may be expressed in terms of the titles of dispensary physicians. All good hospital dispensaries, however, in which the requirements of service are comparable, would find it possible to establish salary schedules on a comparable basis, provided, of course, the principle of salary payment is approved generally.

As against the plan of paying salaries to physicians, which in a large dispensary such as Mt. Sinai would mean a very burdensome increase in the dispensary budget, the plan of offering promotion to dispensary physicians, as suggested in another part of the report, should be considered. Dispensary physicians are strongly in favor of the salary plan under existing conditions, and unless some other way is devised of rewarding physicians, through the raising of admission fees, the adoption of the "pay" clinic plan, or some other plan which would permit physicians to obtain certain fees for their work, it is believed that all dispensaries will find it necessary sooner or later to raise funds for paying physicians.

(c) *The Development of Special Clinics.*—The division of clinics into medical and surgical, with their respective sub-divisions, is the commonly accepted grouping of the out-patient work in most of our large general dispensaries. The usual plan is to divide the clinics during the week on this basis, three days being devoted to medical cases and three to surgical cases; and dispensary physicians, attached to one or the other of the two main divisions, are on duty ordinarily only three days each week.

Further differentiation of clinics has, however, been dependent upon a number of factors. In those dispensaries which are parts of medical schools, such as the Vanderbilt Clinic and the Cornell Dispensary, specialization of clinic service has been chiefly dependent upon the instruction program of the medical school. The same is true of those hospital dispensaries in which undergraduate or postgraduate instruction is a definite part of the dispensary program, as in the Polhemus (Long Island College Hospital Dispensary) and the Post-Graduate Medical School and Hospital Dispensary. In other dispensaries, however, the development of special clinics has been influenced chiefly by: (a) the interest shown by individual physicians in certain types of disease; (b) the availability for dispensary work of physicians expert in the diagnosis and treatment of special types of disease; (c) the character and needs of the community served; and (d) the space available for dispensary purposes.

Range of Clinic Service

The range of clinic service offered in the general dispensaries included in this study is indicated in the following list:

Applied therapeutics	Internal medicine
Cardiac	Massage
Chiropody	Medicine (general)
Dental	Mental hygiene
Diabetic	Neurology
Diseases of metabolism	Nose and throat
Ear	Obstetrics
Eye	Orthopedics
Fractures	Pediatrics
Gastric	Prenatal
Gastro-intestinal	Proctology
Genito-urinary	Skin
Gynecology	Surgery (general)
Hydriatic	Syphilis
Infant hygiene (chiefly educational)	Tuberculosis
	X-ray and electric treatment

Which of the factors mentioned has been most influential in the development of this plethora of special clinics it is impossible to say, but there is warrant for believing that the most influential factor is, in the majority of instances, the interest of individual physicians in certain types of disease. The physician who takes an interest in a particular type of disease and gives attention to his patients, soon builds up a clientele. When the number of patients becomes large enough, the proper handling of this special group of patients necessitates the assignment of separate space. The next step is the recognition of the physician's efforts by the creation of a special clinic.

In a few dispensaries the factor chiefly influencing the development of special clinics has clearly been the amount of space available for clinic purposes. At dispensaries which, like those of the Lincoln Hospital and the New York Hospital, are cramped for space, the principal clinics are medicine and surgery. On the other hand, at Lebanon, Gouverneur and Mt. Sinai hospitals, which have recently built new dispensary buildings, the improved dispensary quarters provided have resulted in considerable expansion of service along special lines to include a large number of special clinics.

Organization of Special Clinics

With the development of special clinics, the whole problem of organization and administration becomes more and more complex. Furthermore, each new special clinic means additional cost to the dispensary. Dispensaries should, of course, be free to develop as best they can to meet their own and their community's special needs; the multiplication of special clinics, however, should not be haphazard but should proceed in conformity with certain guiding principles. Only a few general rules could be laid down for the guidance of the institutions of a city like New York, varying as much as they do in policy, available space, and financial resources.

It would seem that the following two principles should

find general application, except that teaching institutions might, for purposes of instruction, establish special clinics which have no *raison d'être* in non-teaching general dispensaries.

1. That the special clinics should be limited as far as possible to those branches of medicine in which large numbers of physicians have made themselves expert—that is, the generally recognized specialties.

2. That further specialization, if necessary to meet some peculiar local condition or to satisfy interest of individual physicians, be provided for within existing clinics by the designation of special sections of such clinics rather than by the establishment of new clinic departments—thus concentrating responsibility for direction of clinic work in fewer medical officers.

The maximum degree of specialization, if these principles be accepted, would permit the establishment of the following clinics: Medicine, surgery, pediatrics, genito-urinary, orthopedics, dermatology, eye, ear nose and throat (in combination or separately), gynecology, tuberculosis, and neurology.

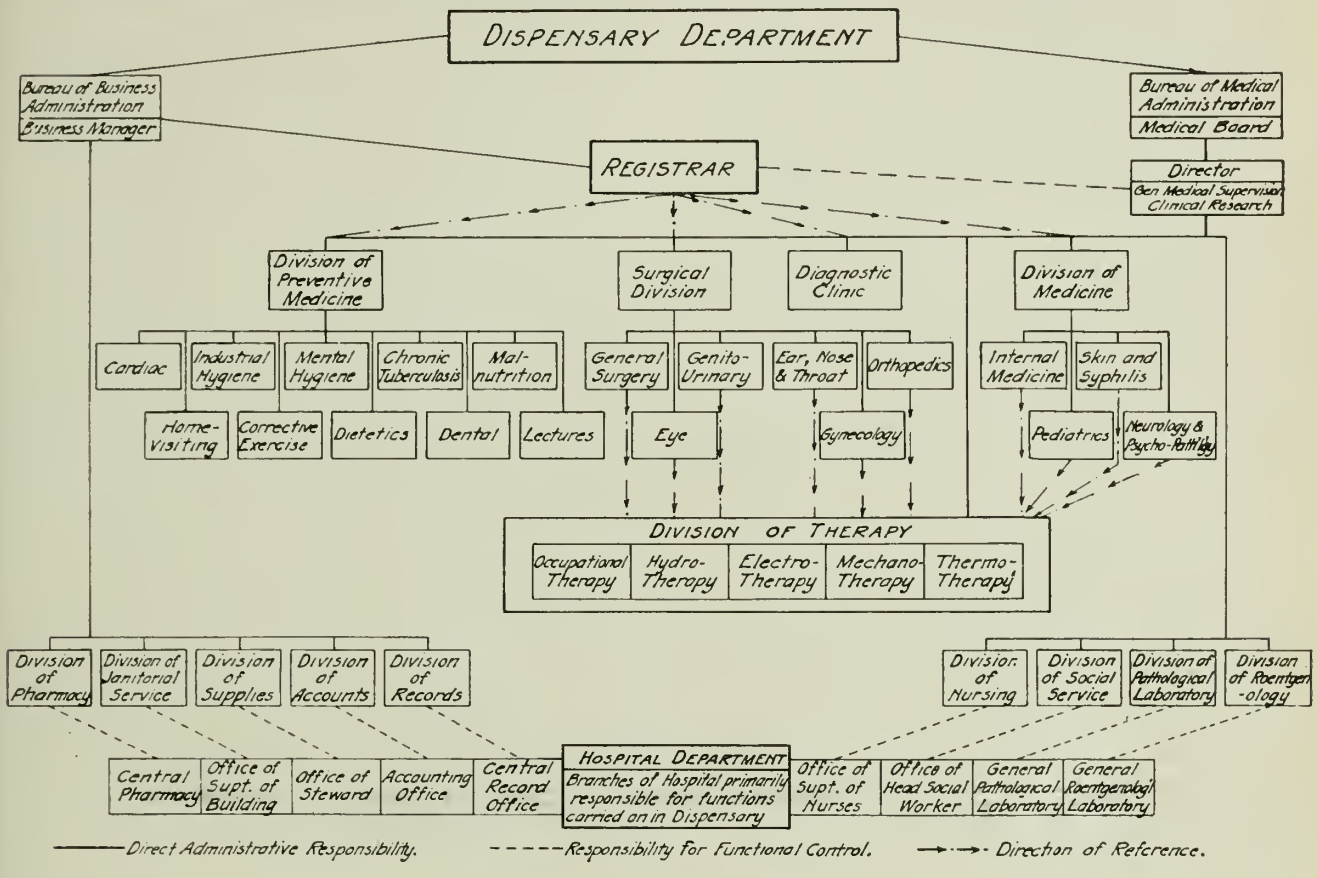
(*d*) *Public Health Centers.*—The prevention of disease as distinguished from the treatment of disease offers a wide field for the development of special clinic services, thus far almost entirely neglected. Some of these preventive services have been recognized as dispensary specialties in several of our large general dispensaries. "Malnutrition" classes and babies' milk stations are a development in this direction. Likewise, prenatal clinics, which have been established in several dispensaries, are primarily disease-prevention clinics and their chief function is the educational guidance of mothers. Whether future development of prenatal clinics will be in connection with the general dispensary services or not is still problematical. On the other hand, the industrial hygiene clinic, which properly should be regarded as a disease-prevention clinic, has developed thus far independently of the general dispensary work. The educational opportunities which each dispensary possesses are almost totally neglected, although, as has been pointed out above, a great deal could be accomplished in that direction by exhibits, demonstrations, and other methods at the disposal of the clinic authorities, without much additional cost and without causing any derangement in the existing administrative organization.

There is, however, a much wider opportunity in the direction of public health endeavor. The dispensary could be made to serve as a health educational forum for the neighborhood. In addition to lectures, conferences might be held at which the health problems of the neighborhood could be discussed jointly with the representatives of the social and civic agencies and of the Health, Tenement House, and other departments of the city. The dispensary could be made a center of gravitation in all work aiming at prevention of disease, as well as the place where people go to have their ills treated. Periodical physical examinations are considered essential for checking the insidious workings of certain diseases, and the dispensary could easily develop this service at a time of the day when the plant is free from other claims upon it.

Aside from transients, every dispensary has a fixed

TENTATIVE PLAN OF ORGANIZATION OF LARGE HOSPITAL DISPENSARY

SUGGESTED BY THE PUBLIC HEALTH COMMITTEE OF THE NEW YORK ACADEMY OF MEDICINE



clientele,—people of small means who come whenever trouble develops. These are the people who should be, could be, and would be reached the moment the dispensary announces that it is ready to advise its clients as to their physical conditions at stated intervals, in order that early attention may be given to an incipient disease, the unsuspected existence of which an examination may disclose.

In 1913 a special committee of the Board of Estimate and Apportionment of New York recommended to the city that a health center with far reaching scope be established for experimental purposes in connection with Bellevue Hospital. The aims of such a center, as formulated by the committee, were as follows:

"The proposed health center is designed as an experiment to enable the city to determine whether or not: (a) it should attempt to give home treatment; (b) cases can be classified as those which should or should not go into hospital for treatment; (c) information as to living and working conditions will aid in the prevention and treatment of sickness.

A health center properly operated should accomplish the following results:

1. It would bring the hospitals and Health Department into cooperation, and leave no uncovered territory between the functions performed by each.

2. It would enable the hospitals to secure thorough knowledge of the working and home conditions of patients coming into the hospitals, and any factors contributing to sickness.

3. It would retain at home many patients who otherwise would go to the hospitals, and would exercise an intelligent opinion as to those who should or should not be treated in the hospitals.

4. It would give more intelligent care to convalescing patients, which is now given in but a limited degree by the Social Service Department of Bellevue Hospital, and would restore these patients to health and working vigor much sooner than is now done.

5. It would advise patients when to go to an outpatient department, and, by visits to their homes, would induce them to make as many subsequent visits as might be needed to effect a cure.

6. By maintaining supervision over contagious and infectious cases cared for at home, their possible spreading would be minimized.

7. Cases of contagion discovered by the physician and nurses of Bellevue would come to the notice of the inspectors of the Health Department at once and thus would be obviated the delay due to the process of notification by mail.

8. The instruction of mothers in a health center should be a material aid in securing and maintaining health conditions in the family.

9. Centralizing information and records of a district at one place would make them accessible to all agents in the district, thus rendering it possible to treat a large proportion of sickness at its inception. By this system, duplication of effort would be reduced, the hospitals would be relieved, and the amount and duration of sickness diminished."

The idea of health centers has gained ground, and before long experiments in that direction will no doubt be tried out, both as independent units and in connection with dispensaries.

(*e*) *Pay Clinics.*—The "pay" clinic is a comparatively recent development of dispensary service in New York City. The "pay" clinic as distinguished from the "free" clinic, provides medical diagnosis and treatment at a fee more commensurate with the service rendered, including payment to physicians doing the work. The pay clinic aims at the utilization, in a cooperative and economical way, of the services of physicians and the facilities of the dispensary for providing efficient service to patients able to pay a moderate fee. The pay clinic is designed chiefly to meet the needs of the wage-earner who is usually at work during the day, and is therefore conducted in the evening.

The differentiation of "free" and "pay" clinics is perhaps most clearly made on the basis of the fee charged. In the so-called "free" clinics the patient pays a nominal sum, varying ordinarily from 10 to 25 cents, depending to some extent upon the cost of service rendered, but not designed to make the service self-supporting. The pay clinic, on the other hand, endeavors invariably to meet all of the expenses involved, from the proceeds of the clinic.

The operation of pay clinics, and particularly evening pay clinics, places an added burden on the physician, and he must, of course, be compensated therefor. Because of certain special requirements of the pay clinic, similar in many ways to private practice, and the difficulty of obtaining desirable men for regular evening work, a pay clinic would be difficult to fit into the plan of combined hospital and dispensary medical organization. For the most satisfactory operation of the pay clinic plan, it would seem advisable, therefore, to designate separate and independent medical groups which would be constant and not subject to a promotion plan, such as has been suggested. Regular physicians of the free dispensary service should, however, have preference in the appointment of physicians of a pay clinic, if they desire this additional work.

DISABLED MEN CAN BE BARBERS OR HAIR-DRESSERS

A series of studies on the suitability of certain trades and on the training which will fit disabled men for those trades have been appearing recently in the Inter-Allied magazine which is published at Paris under the title *Revue Interalliée pour l'Étude des Questions intéressant les Mutilés de la Guerra.* These articles have been contributed by Dr. Charles Vàllée, the medical director of the large school for disabled soldiers in the Grand-Palais in Paris, and are based on the experience of the school. The latest discusses the trade of barber and hair-dresser.[1]

Both barbering and ladies' hair-dressing, the article states, can be practiced by men who have an artificial leg, a club foot, or a shortened or stiff leg, but men who have lost both legs, or who are prevented by paralysis or other injuries from standing are limited to work on false hair pieces. Slight injuries to the hands and arms, such as amputation of the little and ring fingers, bone grafts in the left arms, and other similar mutilations, do no debar a man, nor does radial paralysis, or drop wrist, when the patient is fitted with an appliance which makes a grip possible. A former barber who has lost an eye can go back to his trade, but a new man with only one eye cannot be successfully trained. Trephined cases, if not paralyzed, find making hair pieces a good, quiet, sedentary occupation.

A detailed outline of the instruction in the various branches of the trade given at the Grand-Palais is included in the article. Of eighty-one men trained since the class opened, fifty are said to have passed the guild examination in competition with normal men.

The first wealth is health.—Emerson.

1. Long, E., and Charles Vallée. L'art de la coiffure. *Revue Interalliée pour l'Etude des Questions interessant les Mutilés de la Guerre,* Paris, 1919, ii, 114-130.

HEALTH AND MODERN INDUSTRY

Conducted by BARROW B. LYONS
15 Fort Washington Avenue, New York City

WORK OF NEW YORK CITY DIVISION OF INDUSTRIAL HYGIENE

By S. DANA HUBBARD, M.D., Superintendent, Division of Industrial Hygiene, Department of Health, New York City.

In the year 1915 there was organized within the Department of Health a Division of Industrial Hygiene. This Division was largely experimental and the entire staff consisted of four lay and four medical inspectors, under the direction of the Chief of the Bureau of Preventable Diseases. The occupational clinics, organized primarily for the examination of food handlers, were a part of the Division of Industrial Hygiene.

Due to the limited staff, the work was necessarily much restricted, and consisted principally of physical examinations of special occupational groups. In February, 1919, this division was entirely reorganized, the budget of that year carrying appropriations for a greatly increased staff. The division was separated from the Bureau of Preventable Diseases and placed directly under the Office of the Commissioner, and Dr. S. Dana Hubbard was made superintendent. The staff consisted of ten women lay inspectors, ten medical inspectors, two of whom were women, ten clinical physicians, and ten male lay inspectors. This staff was temporary and functioned until the permanent staff was promulgated by the Civil Service Commission. This occurred in August, when the following staff was appointed: seventeen male lay inspectors, eight female lay inspectors, and ten medical inspectors.

The work of the Division of Industrial Hygiene confines itself to those matters which directly pertain to the health of the industrial worker, and to all the factors which have any bearing thereon. A large part of the work is necessarily of an educational character, and inasmuch as the State Department of Labor, the Sanitary Bureau, and the Bureau of Food and Drugs of the New York City Health Department work along closely parallel lines, it has been the endeavor of this Division to cooperate in every way with these and similar bureaus, in order to avoid duplication of work, and to achieve the maximum of efficiency.

Inspections are made of the factories with a view to inquiring into conditions incident to the work done therein, and discovering whether the environment in which it is done tends to militate against the welfare of the worker. Lectures are given on health subjects to the workers during the noon hour, or, in some cases, with the consent of the employer, on the company time. These lectures, usually four in number, are given on the same day in four successive weeks and cover the following topics:[1]

1. Personal Hygiene.
2. Accident Prevention.
3. Personal Habits.
4. Venereal Diseases.

Physical examinations are advised, and their value carefully explained, both to employer and to employee. It is found that when the object of these examinations is thoroughly understood, they are cheerfully submitted to. The conditions under which they are given vary in the different factories. In some places they are given in the rest rooms at the noon hour; in others, partly on the employee's time, partly on the employer's time. In still others, the employer permits them to be given entirely on his time.

Examined at Union Headquarters

It is sometimes found that facilities necessary to secure privacy are not obtainable in the factory, and in those cases the workers, if unionized, are examined at such time as convenient to them in their union headquarters; or, if ununionized, they are advised to report direct to the Health Department.

These examinations are quite thorough, and are strictly confidential. The results are communicated by letter direct to the individual examined, who is thus advised of any physical defects from which he may be suffering, and the steps which he should take to remedy them. To date, physical examinations have been made of 1,500 lithographers and engravers, 107 auto drivers, and 500 miscellaneous. It is hoped that, as the importance of physical examinations becomes better understood by the general public, the Division of Industrial Hygiene will be enabled to institute a system of annual examinations of industrial workers, which will go far toward eliminating the present huge total of time lost, due to avoidable illness. Recently, this Division has begun the installation of industrial clinics within those plants which maintain no welfare department of their own, and it is felt that when the value of these clinics has been demonstrated, the firms will feel it worth while to institute a welfare department along similar lines.

Drug Addicts in Industry

In the early part of April, the Federal Government, acting under the provisions of the Harrison anti-narcotic law, conducted a series of raids against doctors, druggists, and others suspected of being implicated in the illicit sale of narcotics. This divorced from their usual source of supply a large number of addicts, of all classes of society.

As the Department of Health is the natural haven of the public, when in trouble, we found ourselves suddenly confronted with several hundred of these unfortu-

[1]The outlines of these lectures, furnished to the Editor of this department, will gladly be furnished upon request. Space does not permit including them here.

nates in dire need of immediate assistance. A very little investigation sufficed to show that the majority of the addicts were engaged in some form of industry. Further investigation revealed that they had succeeded in concealing their vice, not only from their employers, but even from members of their immediate families, and that unless assistance were given them, discovery, with loss of employment and consequent deprivation for those dependent upon them, was sure to ensue. It thus became an industrial problem, in the true sense of the word, and as such, the Division of Industrial Hygiene instituted the first narcotic clinic at 145 Worth Street, and treated the addicts until funds were provided for special management.

Public Education Through Publicity

Publicity has been achieved through the printing of pamphlets on all matters of health vital to the industrial worker, through posters on health subjects, suitable for display in the workshops and other public places, and through formal and informal talks to workers, unions, clubs, parents' associations, community centers, churches, schools, and night schools. In this way, it is attempted to reach every class of the population with the Division's important message of health conservation.

Conventions bearing on subjects of importance to this Division were attended during the past year by the Director at Cleveland, Pittsburgh, Atlantic City, and Harrisburg, and at Washington, D. C., by the supervising inspector.

Articles covering phases of the activities of the Division of Industrial Hygiene are furnished to publications interested in the same, and to the daily press. It is hoped, when the general public realizes the valuable work done by the Division, it will appreciate that such portion of its taxes as are expended for the Division's maintenance is money well and wisely invested.

Different Classes of Industry Inspected

Jewelry
Garages
Clothing
Woolens
Tobacco and Cigars
Artificial Flowers
Chemicals
Printing and Lithographing
Rags
Paper Box
Woodworking
Storage Batteries
Shoes
Embroidery
Foundries
Iron Works
Dye Works
Furriers
Machine Manufacturing
Metal Works
Toys and Infants' Novelties
Plating, Polishing, Etc.
Textile
Glass Cutting
Laundries
Doll Manufacturing
Film Manufacturing
Millinery
Leather Goods
Paints
Ship Building
Stone Cutting
Miscellaneous

RECENT HEALTH SERVICE

In a recent issue of THE MODERN HOSPITAL a short article was published briefly describing some of the specific problems which the industrial service of the United States Public Health Service undertook to solve last year. The editor of this department of THE MODERN HOSPITAL recently received a communication from Dr. Bernard J. Newman, who is in charge of this work, which brings the article in the last issue up to date, briefly describing the more recent activities of the United States Public Health Service in this field. Dr. Newman's outline follows:

(1) This office has secured and detailed to the Bureau of Mines (salaries met by the Bureau of Mines), five medical officers and one engineer to assist that bureau with problems connected with mine hygiene.

(2) In like manner this office has secured and detailed to certain ordnance plants qualified medical officers to have charge of the medical and surgical relief work requested by the United States Employee's Compensation Commission.

(3) Frequent details to investigate the hygiene and sanitation of government buildings including those engaged in industrial processes are assigned to the Office of Industrial Hygiene. One such detail has opened up a comprehensive study of dermatic consequences attendant upon certain processes in printing and engraving.

(4) A comprehensive survey is being made into the occupational health hazards resulting from the use of cutting oils and compounds.

(5) A broad study into the occupational hazards of the foundry trades, including foundries engaged in gray iron, malleable iron, brass, and similar substances, is under way. Complete physical examinations are being given to all employees engaged in such trades. The work is being carried on in the foundries of northern New Jersey and lower New York.

(6) The data collected in the plant survey and physical examinations of the employees in hazardous processes of pottery making is now being tabulated, and the report is in the process of preparation.

(7) The study into air conditioning, begun for this office by Consulting Hygienist C.-E. A. Winslow, is being continued. Special experiments in a new type of fume line carrier are being conducted. Several reports leading to the establishment of standards for air dustiness have been published.

(8) Consulting Physiologist Frederic S. Lee, in behalf of the Service, is continuing his research into fatigue in industrial plants.

(9) The cross section study of industrial plants in and adjacent to New York Harbor has been completed. The temporary clinic for the physical examinations of workers instituted in connection with this study has been discontinued.

(10) Consulting service has been rendered, to a lesser extent than in the previous year, owing to the congressional curtailment of appropriations for this work, and to plants having difficult health hazards, seeking assistance in the determination of the causes and an outline of preventive measures with reference to the same.

(11) Special work has been done in connection with tellurium poisoning in smelting plants. A preliminary report has been prepared for publication.

(12) A special research is now in contemplation. Preliminary steps have already been taken in it to ascertain safe lifting weights for women workers. With the increase in number of women workers due to labor shortage there are bound to be numerous problems arising, involving hazards of unknown character. The war-period brought up one such hazard in the weights which women workers were required to lift. A request was made at that time for the service to study this field in the hope of arriving at certain definite standards.

(13) Constant demands are being made upon the Office of Industrial Hygiene for information as to acceptable standards for personal service facilities. Data are being collected, and a report on this subject is contemplated in the near future.

(14) Numerous physicians have registered with the Office of Industrial Hygiene for positions with manufactories as industrial physicians and surgeons and requests have been received from manufacturing establishments for recommendations to fill vacancies.

(15) The Office of Industrial Hygiene has in contemplation numerous bulletins on occupational diseases, while the Bureau of the United States Public Health Service has many such bulletins available for distribution. Colleges and other institutions of learning have made frequent demands upon the office for special lectures in the field of industrial hygiene, also for advice and assistance in the organization of courses on industrial hygiene in their medical and engineering schools—forms of activity in which the office is particularly interested and, when convenient, glad to cooperate.

(16) In the laboratory work necessary to the conduct of special types of research the Office of Industrial Hygiene has not only had the assistance of the Hygienic Laboratory of the United States Public Health Service, but of the Bureau of Standards, and also of laboratories in industrial establishments in certain city and state departments of health as well as laboratories of universities in the cities where the research work is being conducted.

(17) The Office of Industrial Hygiene is the recipient of numerous inquiries from correspondents throughout the country relative to occupational conditions and the hazards associated with certain occupational processes. Advice is sought on matters of community sanitation and hygiene of industrial towns as well as industrial establishments, and assistance is rendered to civic association and Chambers of Commerce in determining the scope of service which might be directed with feasibility by such bodies. Similar advice and assistance is given to hospitals and civic associations desirous of establishing occupational clinics.

PRISONER AND FREE MAN

By EDWARD H. CLEVELAND, M.D., Superintendent, The House of Rest for Consumptives, Bolton Road, Inwood-on-the-Hudson, N. Y.

How I got there I could never have told. My week's wages had something to do with it. Also certain fellows of erratic habits. Anyway I landed penniless among others, with time to serve—three months, six months, or a year—as it might happen.

I remember one chap saying to me: "This is fine, bo! Great place! Only two or three hours' work a day, three good meals, a clean bed, and plenty of time to loaf and smoke. Me for this, if they will keep me always!"

There was another, with a woeful countenance, who said to me: "Isn't this frightful? My first experience of such a place. My heart is broken, my whole life is spoiled! How shall I ever be able to hold up my head again and look people in the face, let alone my poor wife and mother! It is a terrible thing to blight a young man's life for a mere peccadillo!"

For myself, it was not my first experience.

On a Sunday the chaplain talked to us and we sang. It seemed like a dream to me. He said: "There must be some few of you who will yet make good. I'll tell you what,—if any man will go home when he gets through here, and stick to his job and do right by his little family, I'll come over some day and sit down at his table with him and visit him in his home. The words rang in my ears long afterward. It seemed impossible to forget them.

Something else he said stuck by me in spite of myself,—"Can't we make up our minds to live within limitations?" I knew I could, but would I? There was the rub. Day after day the echo of his words followed me to and fro, sounded in my heart by day, and haunted me o'nights.

So the weeks passed, slowly enough, and in the travail of them a new hope was born.

* * * *

The old man in the printing office down town was good to me when I got the chance to see him. Said he would try me again. And it did not take so long as one might think to get the wife and the two boys into a snug little flat, near the Brooklyn end of the bridge. Then as we sat one night at supper we spoke of asking the chaplain over to visit us. A few lines were all that were needed. He came on the day set.

That was all. A friendly chat, as though we had always lived decently, as though he had known us always, and valued our friendship.

It is several years since that first visit.

By the grace of God and the benefit of prayer, and the daily effort to encourage and urge on some other chap getting back into line, I am making good. I am living within limitations. I am grateful for the hard experience, and most of all for the loyalty and devotion of the little woman and our two boys, who look to me to stand firm for what I know is right. John Barleycorn is buried, or nearly so, in the great city. But he has never threatened my peace of mind in all these years, and, please God, he never will.

One thing I know, that whereas once I was a prisoner, now I am a free man.

ROYAL VICTORIA HOSPITAL, FOLKESTONE

The growth of the Royal Victoria Hospital, Folkestone, England, shows a remarkable development from an obscure institution called "The Dispensary," founded in 1846, to the spacious building which stands today.

"The Dispensary" was founded by Dr. Donnelly, a retired naval surgeon, whose portrait still adorns the walls. It was not till 1863, says the *Hospital Gazette*, in giving a brief history of the hospital, that the question of a hospital or infirmary was seriously considered. In 1864 a small house was leased wherein two of the upper rooms were made into small wards with a couple of beds for the admission, at first, of accident cases only. It was called "The Folkestone Dispensary and Infirmary."

The three objects of the institution at that time are interesting, being (1) the medical relief of persons suffering from disease and accident; (2) of the destitute poor gratuitously; and (3) of those in better circumstances upon payment. Soon a postmortem room was erected in a garden attached to the premises. The hospital carried on its work with only ten beds provided for, in rooms small and badly ventilated, until 1890, when the main block of the present commodious buildings was erected as a Victorian Jubilee Memorial. The cost was over £7,000.

The new building soon proved inadequate and the first stone of a new wing was laid on May 26, 1900, for accommodating fifty in-patients. The accommodation was temporarily doubled during the war. The growth is shown by the following figures: in 1864, 835 patients were cared for, the expenditure being £271; in 1918 there were 2,426 patients, 853 casualties, and 151 dental cases, with an expenditure of £7,395.

It is far better to give work which is above men than to educate men to be above their work.—Ruskin.

OCCUPATIONAL THERAPY, VOCATIONAL RE-EDUCATION AND INDUSTRIAL REHABILITATION

Conducted by DOUGLAS C. McMURTRIE, Secretary Institute for Crippled and Disabled Men and MRS. CARL HENRY DAVIS, Adviser in Occupational Therapy, 2929 Broadway, New York City

MILESTONES IN THE FIELDS OF REHABILITATION

By DOUGLAS C. McMURTRIE.

The developments that have taken place in the work of human reconstruction since the signing of the armistice warrant the belief that the experience gained during the war will constitute a permanent contribution toward a new constructive policy with regard to cripples. Rehabilitation has not only outlived "war" work, but there is every indication that it is developing into a scientific system of permanent value.

This is equally true of the two fundamental phases of rehabilitation—occupational therapy, which has for its object the restoration of the disabled man's impaired functions, and economic rehabilitation, which aims, by vocational guidance, training and placement in employment, to complete the disabled man's restoration to civil life.

The signing of the armistice was followed by the creation in this country of new reconstruction centers and by an expansion of reconstruction facilities, intended for the large number of injured soldiers who were returning from overseas for treatment. Facilities for physical reconstruction were provided in base hospitals, and there were established additional general hospitals for the work, resulting in a total of forty-nine reconstruction hospitals and nineteen convalescent centers in the training camps. The part played by occupational therapy in physical reconstruction grew steadily during the war and it has kept growing ever since. Figures for fifteen army hospitals indicate that while the total number of patients had decreased from 66,640 in April, 1919, to 24,112 in October, the proportion of patients that were enrolled in the educational service at these hospitals increased during the same time from 43 per cent to 58 per cent. In November, 1919, an appreciable proportion of the patients in general hospitals were enrolled in educational and vocational courses.

Development of Occupational Work

It would be unfair to claim that occupational therapy was a wartime discovery. The curative value of work and its importance as a factor in restoring both the physical and the mental capacities were granted long ago. Practically, however, facilities for occupational therapy in hospitals before the war were rather an exception than the rule, for they were considered more as a luxury than as a necessity. The beginnings of occupational therapy during the war were exceedingly modest. In Walter Reed Hospital a shopwork for curative purposes was established in February, 1918, and it was at first limited to the simplest kinds of carpentry. Ward occupations, intended mainly for bed patients, consisted at first only of knitting of colored wool squares for blankets and of some machine knitting. Slightly over a year later, work in the following occupations was carried on in the wards: chairmaking, cardboard construction work, woodworking, block printing, rush seating, brush making, book binding, modelling, rug making, stenciling, mop making, designing post cards, plasticine modelling, drawing, leather work, hand knitting, frame knitting, machine knitting, weaving, basketry, bead work, making colonial mats, netting, cord work, crocheting, and embroidery. In addition to these occupations whose value was chiefly diversional, there were introduced in the wards other activities of a prevocational character and better calculated to stimulate the interest of the patient: stenography, typewriting, mechanical drawing, winding of electrical armatures, academic and commercial study, etc., The work in the shops now includes wood carving, engraving, jewelry, silver-smithing, watch and clock repairing, enameling, display painting, drafting, leather work, oxyacetylene welding, motor mechanics, machine shop practice, telegraphy, motion picture operation, radio operating, electrical work, making of artificial limbs, printing, carpentry, cabinet work, pattern-making, and so forth. In additional, the men are trained in gardening, farming, stock breeding, dairying, poultry raising, and hog raising. Instruction is given in commercial and academic subjects. A training school established at the hospital has prepared hundreds of reconstruction aides and occupational therapists.

The methods of selecting for every man the most suitable occupation in accordance with his injury, his mental capacity, his special abilities or disabilities, his former training and vocation, have been considerably improved. Walter Reed has become a center of study and experimenting, where uniform standards of occupational therapy have been worked out that have served for the guidance of other hospitals.

New Curative System Evolved

As a result of the war emergency it has been possible to lay the foundation of a new curative system. The effectiveness of treatment by work has been demonstrated so conclusively that it is believed that occupational therapy will become a permanent policy of the military administration of this country. The United States Public Health Service announced recently that its Hospital Division was organizing a section of physical reconstruction to direct and supervise the several branches of occupational therapy and physiotherapy in its hospital stations. The United States Public Health Service is in charge of the medical treatment of disabled soldiers after they have left the army. While the development of occupational therapy is designed primarily as a continuation of the military hos-

pitals along these lines, and while it is for this purpose that the Public Health Service is gradually going to take over from the army hospitals the equipment and the trained personnel, it may be assumed that this will be one of the ways by which the scientific results of experience gained in the treatment of disabled soldiers will be preserved and made available for the benefit of the civil population.

The strong impulse that has been given to the growth of the popularity of occupational therapy by the achievements of the last few years is manifest. When the war started there had been only a few rudimentary attempts made in this field, in some hospitals for the insane, in a few sanatoria for the tuberculous, and in two or three general hospitals, such as the Massachusetts General Hospital, or the Cincinnati City Hospital. Now, following the lead of the army hospitals, the old facilities are being expanded and perfected, new ones are being created, and the question of generalizing the use of occupational therapy in hospitals is discussed by medical authorities as a practical proposition.

An interesting development has been the establishment of courses for the training of instructors in occupational therapy. A training course for two hundred women has been planned by the National Service School in Washington. Last summer the Montefiore Home in New York City offered several scholarships in occupational therapy at Teachers' College. A school of occupationnal therapy is functioning at Consolation Home, in Clifton Springs, New York. In Milwaukee, a department of occupational therapy has been established at Downer College, where two courses are given, one of six, and the other of eighteen weeks. The Illinois States Department of Public Welfare has established a training school for this work. In January of this year a course was offered at the Carnegie Institute of Technology by the Margaret Morrison division.

Another indication of the progress of the idea of occupational therapy is found in the striking growth of the National Society for the Promotion of Occupational Therapy, which was founded in 1917. The first meeting of the Society was attended by six persons. At the third conference, held in chicago in September, 1919, over three hundred persons were present. Not only had the membership substantially increased but the reports and addresses delivered at the conference proved that it was possible to formulate a number of guiding principles on the basis of the experience which had been accumulated during the last few years in the work of occupational therapy both in this country and abroad. It was especially emphasized that occupational therapy is a field by itself, and that though being related to vocational education, it has its own purposes, the first of which is the mental restoration of the patient.

Economic and Social Rehabilitation

If we now pass from the consideration of occupational therapy for the purpose of physical reconstruction to that of the economic and social rehabilitation of the disabled, we can, in like measure, report considerable progress significant for the future.

As far as the rehabilitation of disabled soldiers is concerned, an important improvement was realized by the law of July 11, 1919, amending the Vocational Rehabilitation Act. The original act, passed in June, 1918, entrusted the work of vocational re-education and of placement of disabled soldiers to the Federal Board for Vocational Education. The Board was authorized to put in training only those men whose cases had been passed upon by the Bureau of War Risk Insurance and to whom compensation had been awarded under the War Risk Insurance Act., This dual administration was said to be responsible for the endless delays in putting disabled men in training, which practically frustrated the object of the Vocational Rehabilitation Act during the first year of its operation, and which caused widespread discontent among the disabled soldiers. Under the law of July 11, 1919, the Federal Board was relieved of the necessity of waiting for the award of War Risk before putting a man in training, and was empowered to award training upon its own responsibility to all those honorably discharged men who, in its opinion, were in need of vocational rehabilitation to overcome the handicap of their disability. The Federal Board is also obliged to provide for the maintenance of the men and of their dependents during training.

The national legislation for disabled soldiers by no means marks the limit of the rehabilitation movement. Those who, in face of the first efforts for the restoration of the disabled soldier to economic usefulness, were looking beyond the immediate and most urgent task, those to whom the achievements in the field of soldiers' rehabilitation opened a broader vista of a new public attitude toward the cripple and of a new constructive policy in dealing with the cripple, have not been disappointed in their expectations. It is certain that as a result of the successful work that has been accomplished for disabled soldiers in all belligerent countries the idea of rehabilitation has taken firm root in this country,—perhaps more so than anywhere else. We have undoubtedly entered upon the road that ultimately leads to the working out of a constructive program of economic and social rehabilitation of the disabled, irrespective of the cause of their disability.

It was the realization of this necessity of building up a permanent policy of rehabilitation that inspired, in the very first days of the war, the creation of the Red Cross Institute for Crippled and Disabled Men, as an agency for the training and placement of cripples and as a center of research and experiment in all problems related to rehabilitation. This institution, which now functions as *The Institute for Crippled and Disabled Men—The School of Another Chance,* has placed in two years about 1,800 cripples in employment in different fields. It gives instruction to crippled men and boys in printing, oxyacetylene welding, motion picture operating, typewriter repairing, enameling, nickel plating, jewelry, and the making of artificial limbs.

An international conference on the rehabilitation of the disabled, called at the initiative of the Institute, met in New York in March of last year. It was the largest meeting of its kind, and its work covered the widest range of questions. Besides the representatives of the official organizations that are concerned with the disabled soldiers in this country,—the Office of the Surgeon General, the Bureau of War Risk Insurance, the Federal Board for Vocational Education, the Red Cross, and so forth,—France, Italy, Great Britain, Belgium, and Canada were officially represented by their most prominent leaders in the field. Over 300 papers were read, dealing with the most varied aspects of rehabilitation,—physical reconstruction, artificial limbs, occupational therapy, organization of the work, vocational guidance and training, placement and employment, public education, the first legislative measures for the benefit of disabled civilians, and so forth. The Conference thus fully accomplished its object, which was to present the general conclusions of the rehabilitation work performed in the allied countries during the war, and to outline the lessons that might

be drawn from that experience for the benefit of the rehabilitation of persons disabled in the ordinary pursuits of life.

During 1919, a number of states passed laws providing for the rehabilitation of disabled civilians. As is natural in the present experimental stage, these provisions vary greatly in the different states with regard to the classes of persons covered, the scope of the work and its organization. The New Jersey law may be considered as the most adequate, as it, on the one hand, covers the largest number of people by including under the term physically handicapped "any person who, by reason of a physical defect or infirmity, whether congenital or acquired by accident, injury or disease, is or may be expected to be totally or partially incapacitated for remunerative occupation," and, on the other hand, it has learned the lesson of the European countries, namely, that, in order to be effective, rehabilitation must be organized as a single system, all the phases of which are inter-dependent and mutually complementary. Accordingly, the law puts the whole work under the control of one body, whose duty it is to reach every disabled person in the state, to induce him to take up rehabilitation, and having succeeded in that, to take all measures that may be necessary to facilitate his rehabilitation, by providing for him medical treatment, artificial limbs, vocational guidance, training, and placement. This body is a specially created state commission, which is composed of the Commissioner of Education, the Commissioner of Labor, and the Commisisoner of Charities and Corrections, and of three other members appointed by the Governor, one of whom shall be a representative of the employers and one of organized labor. The Illinois and the Pennsylvania laws are in all essential provisions similar to that of New Jersey, with this difference, however, that instead of creating a special commission, Illinois entrusts the rehabilitation work to its Department of Public Welfare, and Pennsylvania to a bureau of rehabilitation established by the Department of Labor and Industry; besides this, the Pennsylvania law covers only persons injured in industrial accidents.

The California law creates an "industrial rehabilitation fund," which is to be used by the industrial accident commission to promote the rehabilitation of persons disabled in industry; to support the fund, employers are required to pay the sum of $350 in cases of industrial accidents resulting in death when there are no surviving beneficiaries. The Massachusetts law of 1918, which is the first of its kind enacted in this country, establishes a division in the Industrial Accident Board which shall have charge of the training and placement of persons injured in industrial accidents. The division is empowered to cooperate with the State Board of Education in the establishment or maintenance of training courses. Another law, passed in June, 1919, directs the Industrial Accident Board to Investigate the various mechanical and surgical devices and methods of training and education invented during the war with a view to using them for the rehabilitation of those disabled in industry. In Minnesota a division for the rehabilitation of victims of industrial accidents is established at the State Board for Vocational Education: the Board and the Department of Labor and Industries are directed to devise a plan for cooperation in the matter of rehabilitation. Rhode Island has authorized the commissioner of public schools to provide training for any cripple who appears to be fit for rehabilitation. In Oregon, the industrial accident commission has been directed to establish an industrial and reconstruction hospital for workers injured in industrial accidents.

Federal Legislation Desired

There has been a growing demand for Federal legislation that should assist and encourage the states in making provisions for disabled civilians. The so-called Smith-Fess bill, which has been passed by both houses of Congress, was designed to meet this demand. The bill provides for an appropriation of $500,000 for the first fiscal year, which is gradually to increase in the succeeding years up to $1,000,000, for the purpose of cooperating with the states in the maintenance of vocational rehabilitation of disabled persons, and in returning rehabilitated persons to employment. The money, thus appropriated, is to be apportioned among the states in proportion to their population and shall be paid to them on a "fifty-fifty" basis, the preliminary condition of payment being that for each dollar of Federal money expended in a state there shall be expended at least an equal amount appropriated for the same purpose by the state. Another pre-requisite is that the state shall have submitted its detailed plan of rehabilitation to the Federal Board for Vocational Education, which is put in charge of the administration of the provisions of the law, and that the plan shall have been approved by the Federal Board. Provisions for vocational rehabilitation are to cover under this bill all persons who have been disabled, whether in industry or otherwise, and are without sufficient means to provide for their own rehabilitation.

The adequacy of some of the provisions of the Smith-Fess bill has been seriously questioned. Doubts have been expressed regarding the advisability of placing the whole work under complete and rigorous control of a central body, instead of leaving more room to the play of local initiative. In addition, it has been pointed out that it may be dangerous to entrust the work to an organization which both by its general purposes and by the character of its personnel is an educational one, as this threatens to bring about a condition where too excessive emphasis is placed upon the educational aspect of rehabilitation, to the detriment of the other phases of the work, which are no less important, such as the work of physical reconstruction which in some cases must precede all attempts to retrain the disabled person, or the economic and social aspects of rehabilitation, the selection of an occupation that shall actually secure economic independence, the placement of the disabled, the protection of the conditions of their labor, and so forth. The success of all those provisions is the only criterion of an efficient rehabilitation system.

The enactment of state legislation in favor of rehabilitation, and the fact that the question of rehabilitation has lately come up at every gathering dealing with the problems of industrial accidents and of workmen's compensation, may be taken as symptoms of a revolution that is going on in the public attitude toward physical disability. Traditionally, the term "cripple" has been associated in the public mind with the idea of dependency. It is now becoming closely associated with that of rehabilitation.

NIGHT CLINICS AT THE HEBREW HOSPITAL

The board of directors of the Hebrew Hospital, Baltimore, have opened a night clinic at the hospital which will be held every Tuesday and Thursday evening. There are a number of free dispensaries connected with the hospitals in Baltimore, but no night dispensaries for the treatment of general diseases. The visiting physicians of the hospitals will be in attendance at the clinics.

Venereal Diseases and the Hospital

Conducted by Alec N. Thomson, M.D.
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REQUIREMENTS FOR DISCHARGE OF PATIENTS FROM TREATMENT FOR GONORRHEA AND SYPHILIS

There is considerable variation in the procedure of discharging patients as cured or no longer communicable in the various clinics and hospitals throughout the United States. There is a greater variation in private practice. In order to provoke discussion, the suggestions of the United States Public Health Service and the British Ministry of Health are reproduced without comment

It is the hope of the Editor of this department that our readers will forward to him constructive criticism upon this subject in order that he may make a compilation that will be of practical value to the hospital, dispensary, and physician engaged in the treatment of venereal disease.

Standards for Discharge of Carriers

The following instructions to directors of Government clinics operated jointly by the Public Health Service and American Red Cross in extra-cantonment zones are published with the hope that they may answer the numerous requests which have been made for Government standards for the purely medical aspect of venereal disease control.[1] (Diagnosis and treatment are not considered in these instructions.)

Standard Procedures to be Followed Before Discharging as Noninfectious.

SYPHILIS

A person infected with the *Treponema pallidum* may be considered, from a public health point of view, to be free from danger of transmitting the infection when a complete clinical examination, in which special emphasis is laid on the thorough exploration of the skin and mucous membranes, particularly those of the orifices of the respiratory, gastro-intestinal, and genito-urinary tracts, shows the absence of any area from which infectious matter can be disseminated.

When a patient is discharged as noninfectious under the above ruling, he must, of course, be plainly advised that his disease is not cured, and that although noninfectious at the time, he may subsequently become infectious to others through contact, and that the disease will probably be transmitted to his offspring until he is actually cured by a proper course of treatment carried on for a definite period. He should, therefore, be warned to remain under observation until such time as complete cure is effected.

In the light of our present knowledge the following seem to be the minimum requirements for cure: No case should be considered as cured for at least one year after the termination of treatment and unless the following conditions have been satisfied: (*a*) No treatment for one year during which time there have been no symptoms, no positive and several negative Wassermann reactions. (*b*) A negative provocative Wassermann reaction. (*c*) A negative spinal fluid examination. (*d*) A complete negative physical examination, having special reference to the nervous and circulatory systems. (*e*) A luetin test may be included.

GONORRHEA (CLAP)

Males

Before discharging cases as noninfectious, the following four requirements must be met:

(1) Freedom from discharge.

(2) Clear urine; no shreds.

(3) The pus expressed from the urethra by prostatic massage must be negative for gonococci on four successive examinations at intervals of one week.

(4) After dilation of the urethra by passage of a full-sized sound, the resulting inflammatory discharge must be negative for gonococci.

Females

(1) No urethral or vaginal discharge.

(2) Two successive negative examinations for gonococci of secretions of the urethra, vagina, and the cervix, with an interval of 48 hours and repeated on 4 successive weeks.

(This rule is laid down as the best practical method at our disposal at present, but it is fully realized that such negative findings may not in every instance be conclusive as to freedom from infection, and the patient should be requested to return at frequent intervals for subsequent examination. In fact, all the foregoing rules governing discharge as noninfectious are tentative and will be subject to revision should the combined experience of directors of clinics or others indicate the necessity thereto.)

(3) *Technic for procuring smears from the cervix and urethra.*—Slides should be prepared from the secretions procured from the urethra and cervix, as well as from secretions which may be expressed from Skenes and Bartholins glands. In preparing urethral slides the finger should be inserted in the vagina and expression made on the floor of the urethra from within outward, the cotton-tipped probe being then introduced well into the meatus. In procuring smears from the cervix a vaginal speculum should be introduced and the cervix well exposed. All secretions should be mopped away from the external os before taking the smear. After the cervix is well dried, a probe, tightly wound with cotton, should be inserted into the cervical canal and rotated several times. It is exceedingly important that the secretion from the cervix shall be in reality cervical secretion and not mucous

or pus from the vagina. It is advised that two or three slides be prepared from both urethra and cervix.

TEST FOR DISCHARGE AFTER COMPLETION OF TREATMENT AND OBSERVATION

In England under the very extensive scheme inaugurated by the Local Government Board, requirements for the discharge of patients have been revised from time to time. In December, 1919, the new British Ministry of Health issued the following memorandum, their publication V. 21:

"This memorandum has been prepared by the Ministry of Health for the guidance of the Medical Officers of V. D. Treatment Centres. The Memorandum is based on suggestions which have been made to the Ministry by certain Medical Officers of Venereal Disease Treatment Centers as to the tests which in their opinion should be applied, before discharging a person who has suffered from syphilis or gonorrhoea, as having completed the course of treatment and observation. Medical Officers are asked to give careful consideration to the Memorandum, but it is not intended to suggest the invariable adoption of the methods indicated.

A. IN THE CASE OF GONORRHEA OF MALES

"Before being classed as 'discharged after completion of treatment and observation,' a patient who has suffered from gonorrhea, and is apparently cured, should have been subjected, on three successive occasions, at weekly intervals after the cessation of all curative treatment, to the tests outlined below. Before and during the course of these tests the patient should receive provocative treatment on the following lines:

"1. He should resume his usual habits as regards alcoholic stimulants, pickles, curries, spices, and the like.
"2. A full-sized Metal Bougie should be passed on the first visit.
"3. Silver nitrate, 5 grains to the ounce, or some other preparation of similar properties should be instilled into the anterior and posterior urethra at the second visit.
"4. The injection of a dose of gonococcal vaccine may be employed if the above provocative treatment has failed to produce any return of signs. The dose to be injected varies, and must be judged by experience of the focal effect of the particular make of vaccine selected.

TESTS

"*Note.* The patient should be instructed to refrain from micturition for at least 4 hours before being tested.

"(1) *The Urethra.*—Examination should reveal no urethral discharge, or if this is present, it should be slight in amount transparent, and free from gonococci.

"Palpation over a metal bougie should show no evidence of periurethral abscess, thickening of the urethral wall, or enlarged follicles.

"It is advised that, on one occasion at least, an urethroscopic examination be carried out in order to detect any remaining pathological condition of the urethra not disclosed by other methods of examination.

"(2) *The Urine.*—(a) Films made from threads and centrifugalized deposit should be examined microscopically for gonococci.

"(b) If no gonococci are found by microscopic examination, it is advisable that cultures should be made of the same material.

"(3) *The Prostate and Seminal Vesicles.*—Palpation of the Prostate and Seminal Vesicles should disclose no enlargement, tenderness, thickening, or evidence of abscess.

"After these organs have been massaged—

"(a) Films should be made of their secretions recovered from the meatus, or of the deposit from Sterile Salt Solution (0.9 per cent) previously injected into the bladder.
"(b) If no gonococci are found by microscopic examination, it is advisable that cultures should be made of the same material.

"(4) *Complement Fixation Test.*—It is suggested that, in addition to the above, the patient's blood should be tested, according to the method described on page 31 of the Medical Research Committee's Special Report, Series No. 19. Unless the reaction is negative, the patient is not to be considered as cured without further tests.

"It is to be noted that, if the patient has been under treatment by vaccine, his blood serum is likely to give a positive reaction to this test in any case for about three months after cessation of treatment. A steady diminution of the strength of the reaction, as shown by repeated tests during this period, would be strongly suggestive of cure when taken in conjunction with the results of the preceding tests.

B. IN THE CASE OF GONORRHEA OF FEMALES

"A female patient who has suffered from gonorrhea, and is apparently cured, should be subjectd to the tests outlined below on three successive occasions, at monthly intervals, after the cessation of all curative treatment. The tests can most profitably be carried out immediately before or after the menstrual period. Before and during this procedure the patient should receive provocative treatment on the following lines:—

"1. She should resume her usual habits as regards alcoholic stimulants, pickles, curries, spices and the like.
"2. Silver Nitrate Solution (15 per cent) should be applied to the cervical canal.
"3. The injection of a dose of gonococcal vaccine may be employed if the above provocative treatment has failed to produce any return of signs. The dose to be injected varies, and must be judged by experience of the focal effect of the particular make of vaccine selected.

TESTS

"(1) *The Urethra.*—Digital pressure on the urethra should be employed per vaginam, and any discharge obtained thereby examined for gonococci. The urethra should be palpated to detect any persisting peri- or paraurethral infection. Urethroscopic examination is advised to detect abnormalities not disclosed by other methods of examination.

"(2) *The Urine.*—Should be examined as detailed for men.

"(3) *The Vagina.*—The glands of Bartholin situated on either side of the vaginal orifice should be palpated. Any secretion so expressed should be examined microscopically.

"A Ferguson's speculum should be passed, and specimens of discharge from the vagina and cervix uteri, respectively, subjected to microscopical investigation.

"*Note.*—If the microscopic examination detailed above reveals no gonococci, but fresh pus, it is advisable that cultures should be made.

"(4) *Complement Fixation Test.*—It is suggested that, in addition to the above, the patient's blood should be tested as recommended for men.

C. IN THE CASE OF SYPHILIS

"(1) A syphilitic patient may, unless adequately treated, transmit the disease to others at any time up to four years from the date of infection. After this period the risk of conveying the disease to others is slight.

"A patient who first comes under observation within the first four years from the date of infection should receive such treatment as, in the opinion of his medical attendant, is sufficient to render him permanently non-infectious and should then be submitted to the following tests. *These tests must be carried out subsequently to the cessation of all curative treatment.*

"(a) The blood-serum should be examined for its behavior to the Wassermann test, or any other serological test which may be approved for syphilis, within one week after cessation of treatment and once every three months thereafter until the end of the second year. It is recommended that, one week prior to the fifth and ninth of these serum tests (end of first and second years, respectively), an injection of a small provocative dose of an arsenobenzol compound, say, 0.3 grm., '606' or 0.45 grm. '914') be administered.

"(b) Once each month for the first twelve months and once every three months during the second year the whole of the skin and mucous membranes should be inspected for any return of syphilitic lesions.

"(2) In the event of the patient again becoming infected or any of the above tests revealing signs of relapse, treatment should be resumed, and subsequent to its cessation the tests (a) and (b) above should be again carried out.

"(3) In the event of the above observations and tests extending to a date which is more than four years from the last infection, the patient may for practical purposes be regarded as non-infectious. He should, however, be advised, in his own interest, to continue treatment and to submit to subsequent observation and tests until it is reasonably probable that the disease has been eradicated.

"A similar course should be followed in the case of patients who first apply for treatment at a date which is more than four years from the last infection."

SURVEY OF SYPHILIS IN RAILROAD MEN

Dr. John H. Stokes presented the results of a survey of syphilis in railroad men examined in the Section of Dermatology and Syphilology in the Mayo Clinic. It was found that in a series of 1,700 unselected cases, syphilis was present in 11.7 per cent of the railroad employees, 6.1 per cent of laborers, 3.8 per cent of business men and in only 1.5 per cent of farmers. A survey of fifty syphilitic railroad employees, confirmed by a second duplicate survey of another fifty unselected cases, showed that three-fourths of the infected men were engaged in the actual operation of trains. Syphilitic infections in these men, in spite of the fact that they are theoretically under medical supervision, had been recognized in only 56 per cent. Twenty-one per cent could give no history other than gonorrhea. Sixty-one per cent had had no recognizable secondaries. The limited value of the history of infection in detecting the presence of syphilis, may be inferred. By inference also, examination for syphilis must be brought to the patient, without waiting for him to seek advice. The blood Wassermann reaction was strongly positive in only 43 per cent and negative in 57 per cent. The cerebrospinal fluid examination yielded positive evidence of syphilis in 64 per cent in the first series and 79 per cent in the second, being evidently the more important procedure of the two. Syphilis of the nervous system was demonstrable by various methods of examination in an average of 81 per cent of the cases. Cardiovascular syphilis was demonstrable in 19 per cent of the cases. Eighty-five per cent of the one hundred railroad men were infected before their thirty-second year. About 70 per cent of the symptoms of late complications began to appear from the sixth to the twentieth year after infection. Nearly 70 per cent of the men of this series appeared for examination before reaching the forty-fifth year and one-third between thirty-five and forty. If 85 per cent of infections occur between the ages of seventeen and thirty-one, and 70 per cent of the onset of late accidents in a fourteen-year period between six and twenty years after infection, medical supervision to prevent late complications should extend mainly to men over twenty-three and under forty-five, instead of over fifty, as is at present the custom.

The symptomatology of these cases showed how frequently the chief complaint fails to suggest the underlying syphilis. Twenty-six per cent sought relief for gastric symptoms. Twenty per cent for symptoms not suggestive of syphilis, 15 per cent for headaches, etc.

The gross neurological findings showed abnormal deep reflexes in from 65 to 75 per cent. A point of special interest was the prevalence of mental symptoms by diminished attention, irritability, amnesic attacks, etc., in 38 per cent. Dr. Stokes cited examples of the important part played by syphilis in railroad men, in the production of wrecks and accidents and in industrial compensation adjustments. The conclusion is drawn that the existing routine railroad medical examination seems insufficient to protect the public from the dangers of syphilis in men concerned in the operation of trains. He ventures three suggestions: (1) routine Wassermann tests on all employees between the ages of seventeen and twenty-five by a competent State Board of Health laboratory, to be repeated on all employees reaching thirty-two years of age; (2) annual effective examination in men between the ages of twenty-five and forty-one, rather than of men over fifty, such examinations to include more attention to pupillary reaction, and at least the fundamentals of a simple neurological examination; (3) formal educational propaganda by railroad medical departments.

COMPARISON OF DUPLICATE SURVEYS OF TWO GROUPS OF FIFTY RAILROAD MEN EACH. ACCOMPANYING ARTICLE WAS BASED ON THE FIRST GROUP

General Data

	1st series per cent	2nd series per cent
Cerebrospinal fluid positive	64	79
Lues, central nervous system	79.5	83
Lues III cardiovascular	18.7	20
Blood Wassermann negative	57	58
Blood Wassermann positive	43	42
Wassermann weak positive	4	2
Use of alcohol	75	61
Heavy drinkers	36	33
History of lues II unobtainable	62.5	60
Lues recognized at some time	55	57
Age of onset late symptoms—over thirty	78	75
Gonorrheal history positive	80	73
Gonorrhea only	24	19
Symptoms appearing from 6 to 22 years after infection	71	67
Per cent infected, by age of 32	91	81
Wassermann on men under 25 will reach	70	60
Sterile or pathologic marriages	44	50
Age on entry—patients between 35 and 40	32	36

Concerned in operation of trains	76	70
Concerned in operation of engines	36	36
Symptomatology		
Gastric	28	22
Not suggestive of lues	18	24
Headaches and head pains	16	16
Cardiac	14	16
Diplopia and poor vision	14	10
Malaise, weakness	12	8
Shooting pains	10	20
Bladder (subjective)	10	4
Nervousness	8	4
Do I have syphilis?	8	6
Laryngeal	8	6
Rheumatism	4	18
Ataxia (subjective)	4	6
Girdle pain	4	4
Dizziness	2	8
Objective Examination		
Abnormal knee reflexes	61.5	79
Abnormal Achilles	78.1	62
Rhomberg positive	38	42
Speech defect	15.7	17
Mental symptoms	38.4	38
Paresthesias	55.8	51.3
Ataxia (objective)	36.8	36.3
Bladder (objective)	47.5	20.5

NEW COMMUNITY SPIRIT OF MEDICAL MEN

Medical men, particularly in small towns, have suffered from the lack of cooperation. There may be in a town four, five, or eight or ten good doctors, one or two of whom have had good surgical training; another may be a good diagnostician, while another is better fitted for laboratory work; but because they have not pulled together, none of them have done the thorough and scientific work of which they are capable. As a result, when their good-paying patrons needed expert medical and surgical attendance, they have been sent to the cities for diagnosis and treatment. The medical men who have served in the army have seen as good surgery in tents, shacks, or in residences converted into temporary hospitals, as they have in the finest surgical amphitheatre in the great medical centers. They have not only seen as good work done, but many who never had the opportunity of doing surgery before have been trained in surgical technic by association with the masters in surgery who have been in France, and have learned that they can perform the major operations as well as their teachers.

When these men go home, they will form into clinical groups, they will build up and equip inexpensive hospitals, they will take post-graduate courses in the line of work in which they are best prepared to specialize, and they will be prepared to give their patrons as good medical and surgical attention as they could get in the larger cities. They will be more thorough and accurate in their work. For instance, the diagnosis of appendicitis will be made earlier and operated upon in the village hospital without submitting the acute appendix cases to the dangers of delay and travel that have cost many a life.—*Medical Brief.*

Science is a first-rate piece of furniture for a man's upper chamber if he has common sense on the ground floor. But if a man hasn't got plenty of good common sense, the more science he has the worse for his patient.—Holmes.

DO MOVIES HURT THE EYES?

"The fact that millions of people go to motion picture shows throughout the United States daily without experiencing any discomfort to their eyes, or that such eye trouble that is found is not traceable to 'over indulgence' in the movies, would seem to indicate that motion pictures are not injurious to the vision," says the United States Public Health Service.

"It is true, of course, that some people do experience a certain amount of eye strain at a motion picture, but in these cases the trouble appears to be due to an ocular defect rather than to the motion picture. Such persons should therefore have the eyes examined by a competent eye specialist, for it is quite certain that the same person would find even more discomfort in the same period of concentrated reading. Eye discomfort in the movies should be regarded as a danger signal and should lead the sufferer to the doctor's office for an examination."

FARMER JIM SPEAKS WITH CONVICTION

"H'lo Jim."

"H'lo yourself, Sam. What you looking so glum about"?

"O, it's this here dinged rheumatism that has got in all my arms and legs. I can sceerce feed myself let alone do my plowing."

"Now, that's too bad, Sam. Whyn't you see the doctor"?

"Course I seen him. The old fool told me to go to the dentist and have my teeth x-rayed. Talk about graft. They can always think up some new way to get the money away from us farmers. Mebbe I look foolish, but not that bad. My arms and legs ache like sin and he tells me to x-ray my teeth. Huh"!

"Wal now Sam. I wouldn't be so sure about that. You know my old woman, Mary? Well, sir, she was just as bad as you, only worse, and I took her to the doctor. That was three years ago, and he told us the same tomfoolishness he told you. Well, I got mad, same as you, and said I wouldn't spend any money for no hifalutin' x-ray.

"But Mary, she wanted me to try it and she had some egg money, so she went. She had a lot of decayed teeth and some bad matter at the roots that was poisoning her, so the dentist said. Well, Mary hasn't had a sick day since she had those abscesses drained and her teeth fixed. It sure was a good investment for Mary."

"You don't say so, Jim. Well now if it don't beat all how there is something in all these new-fangled notions.

"I was just as mad as could be when the kids come home from school with a note from some nurse saying Molly's headaches and nervousness mabbe was caused from her weak eyes; and that Sammy's tonsils was full of matter and those and his adenoids caused the earaches that kept us all night. He couldn't do nothing in school neither and course we knew the kid wasn't healthy, but it didn't seem reasonable.

"Well, we thought we would try fixing those things up, so people wouldn't say we thought more of the hogs than we did of the kids and then, too, we thought mebbe we could prove that nurse was wrong; and by George, do you know those kids haven't had a pain since, and Sammy has caught up in school, too. Say, what was that dentist's name"?

"All right, so long, Jim."

"So long, Sam."

He that hath a trade hath an estate, and he that hath a calling hath an office of profit and honor.—Franklin.

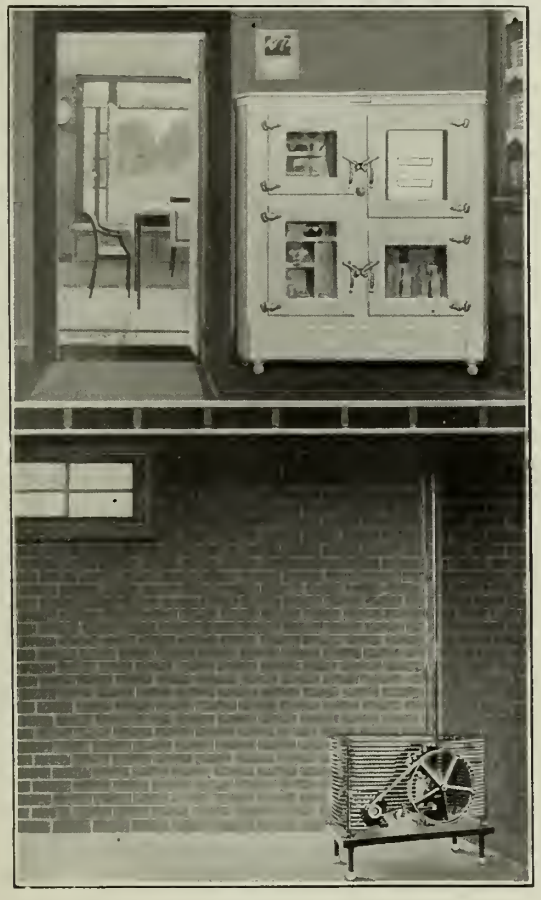
Progress in Equipment and Operation

Conducted by Frank E. Chapman

Superintendent, Mount Sinai Hospital, Cleveland, Ohio

ELECTRICAL HOUSEHOLD REFRIGERATION

Mechanical refrigeration, as applied within the last decade in household refrigeration, has proven very successful. Based on the scientific fact that the rapid evaporation of liquid substance lowers the temperature by



Electrical refrigeration system, showing condenser and motor in basement.

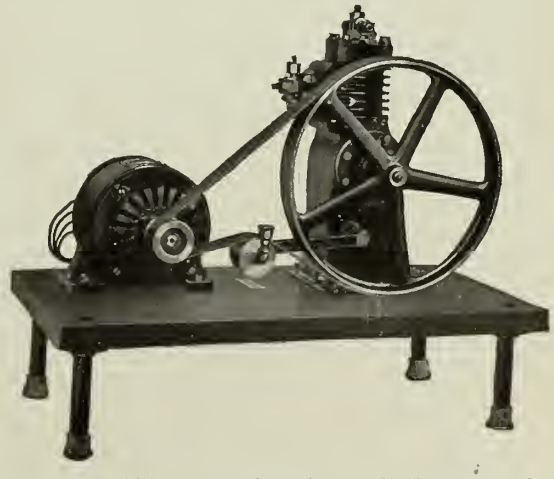
taking up heat from the surrounding atmosphere, this system of refrigeration involves the use of a continuous refrigerating agent. It has been found that this means of producing low temperatures is superior to the ice method, not only as the cold produced is relatively dry, but also as the temperature can in this way be kept unfluctuatingly low. Science has demonstrated that steady, unfluctuating, dry cold is essential in the proper preservation of foodstuffs, because only by this means are the microorganisms present in all food products rendered inactive.

In a recently introduced system of mechanical refrigeration the two main features are a refrigerating element and a condensing element, together with their connecting pipes. The refrigerating contrivance consists of a brine tank and thermostatic control, and goes into the ice chamber of the refrigerator. The condensing apparatus consists of a pump, motor, and condenser coil, and is installed in the basement, or other convenient spot. The connecting pipes go through the floor.

The brine tank, which comes in three sizes, is filled with calcium chloride, in which are immersed the expansion coils. There are chambers in this tank for the making of small cubes of ice for table use.

The refrigerating agent used is sulphur dioxide. In the expansion or refrigerating coil, which is immersed in the brine tank, evaporation of the sulphur dioxide takes place. (The brine solution will not freeze at the ordinary temperature, as its freezing point is much lower than that of water.) After evaporation in the refrigerating coil, the sulphur dioxide is in a gaseous state. It is necessary, in order to use it again, to return it to a liquid state. This is accomplished by cooling and compressing. Thus the gas is forced into a compressor driven by a one-fourth-horsepower electric motor, which pumps the gas from the coils of the brine tank into its cylinders, where it is compressed and forced into another coil, called the condenser.

The condenser, a coil of copper tubing wound spirally on a rectangular form, is air-cooled. The condenser removes the heat acquired by the sulphur dioxide in compression, and also that absorbed from the interior of the refrigerator. Cooling is the final step in liquifying the refrigerant, as, owing to the increased pressure and the reduction of temperature, the sulphur dioxide reassumes its liquid form and again passes into the evaporating coils of the brine tank—the same cycle of operations being repeated again and again.



Electric motor which pumps the sulphur dioxide, the refrigerating agent.

In order to render mechanical refrigeration successful in household use, two devices, a thermostat and an automatic expansion or regulating valve, had to be perfected. The thermostat, which is affected by the slightest change in temperature, is the control opening and closing the motor circuit automatically with the rise and fall of temperature. It is this device which causes the motor and compressor to operate as the temperature rises above a certain fixed point, and to cease operating with the drop in temperature to its normal refrigerating point. In this way the electric motor operates only one-third or one-fourth of the time—or from six to eight hours a day.

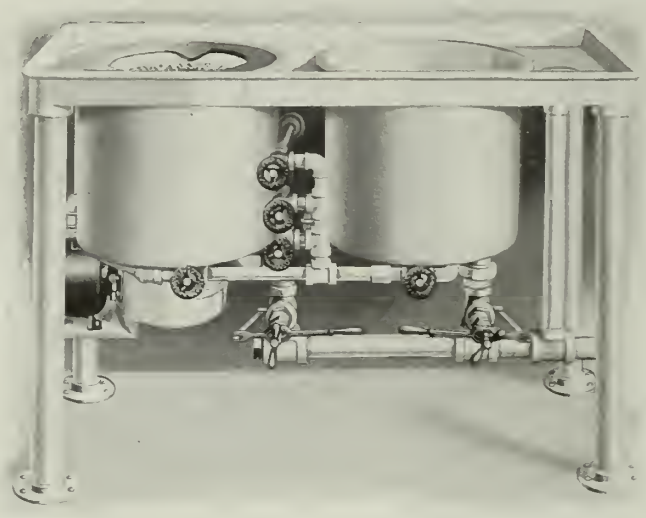
The action of the expansion valve is very simple. Operating on the balanced pressure principle, the valve controls the amount of liquid refrigerant entering the evaporating coils in the brine tank; it permits only sufficient sulphur dioxide to enter the coils as will produce the required amount of cold.

This electrically operated home refrigerating unit is meeting with success in its use in hotels and homes, and should prove invaluable in hospitals, as its introduction means the avoidance of all the inconveniences encountered in the use of ice.

ELECTRIC DISHWASHING MACHINE

The porcelain enamel electric dishwashing machine, made with or without combination sink, is constructed of cast iron, well enameled. The power is derived from a one-fourth-horsepower motor, which revolves two perpendicular reels, thus throwing the water to the center of the bowl, while the dishes remain perfectly still.

The machines are constructed with the fewest possible parts, thus avoiding the expense encountered in the use of complicated machinery, due to breakage and repairs. All gears and wearing parts are enclosed and run in oil. The use of this dishwashing machine is not only more santiary than the dish mop method, but involves a decided labor saving.



A serviceable electric dishwashing machine, having a capacity of 6,000.

NEW MEASUREMENT OF METABOLISM

KATHARINE BLUNT, University of Chicago.

Studies of energy production have been made much easier and simpler since Benedict[1] published the account of his new portable respiration apparatus. The older methods for measuring energy metabolism, long used with brilliant success by Benedict and his co-workers in Boston, and by DuBois and others at the Russell Sage Institute of Pathology, involve elaborate apparatus and require very specialized skill on the part of the experimenter, and often considerable time and patience from the subject experimented upon.

The new apparatus is less expensive and much easier of manipulation, since it requires no gas analysis. In using it the subject breathes through a mouthpiece connected by a rubber tube to an enclosed volume of oxygen-rich air contained in a movable cylinder, or spirometer, while the carbon dioxide produced is absorbed in soda lime. The air in this closed circuit is kept moving by a small blower inside the apparatus, so that breathing is quite normal. To determine the volume of oxygen consumed, it is merely necessary to note the diminution of volume of air in the cylinder. The calories are calculated from this. In 15 minutes, on a woman subject, the oxygen consumption may vary around 3,000 cc., so that observation periods as short as this give a very fair degree of accuracy. The carbon dioxide may also be determined by weighing the soda lime jar before and after an experiment, but as the jar is large and the weight of carbon dioxide small, the observation requires a special balance, and it is hardly necessary for calculation of calories. Carpenter,[2] in a series of experiments comparing results on "untrained subjects" with this apparatus and others in the Nutrition Laboratory, draws favorable conclusions as to the accuracy of the new method.

The possible extent of the use of the apparatus, both for teaching and research, cannot be even suggested. We can now demonstrate to our students and have them find for themselves with vividness, many of the points in metabolism that we have heretofore been merely talking about. First, of course, are the questions of basal metabolism and its variation under different conditions. The hardship in this determination—it being necessary for the subject to come to the laboratory without breakfast, and lie absolutely quiet for a preliminary half hour's rest and for the observation—is not enough to check research. Moreover, the New York workers[3] report that a light breakfast of two pieces of bread and butter, a lump of sugar and 60 cc. of milk, without coffee, has no effect on the basal metabolism after two hours, so that mid-morning observations are feasible. Other questions for investigation by demonstration are to the effect of food, of coffee, of exercise, of household tasks—anything that can be done with a subject lying, sitting or standing, attached to the mouthpiece of the apparatus.

Clinicians are making increasing use of determinations of basal metabolism in the diagnosis of disease, especially hyperthyroidism.[4] Abnormal basal metabolism is probably the best indication of the presence of disturbed thyroid secretion, and such diagnosis is therefore made possible in many more cases by the simplicity of this new apparatus.

The knowledge of man is as the waters, some descending from above, and some springing from beneath; the one informed by the light of nature, the other inspired by divine revelation.—Bacon.

1. Benedict, Boston Med. and Sur. Jour., 178, 667, 1918.
2. Hendry, Carpenter, and Emmes, Boston Med. and Sur. Jour., 181, 285, (Sept. 4), 1919; ibid. 334 (Sept. 11), 1919; ibid. 368 (Sept. 18), 1919.
3. Soderstrom, Barr, and DuBois, Arch. Inter. Med., 221, 613, 1918.
4. McCaskey, Jour. Amer. Med. Assn., 73, 243 (July 26), 1919.

PORCELAIN PLUMBING FIXTURES

An inspection of a great many hospitals will illustrate graphically, the trouble that is experienced by all, *i. e.*, the proper care of metal portions of plumbing fixtures.

Metal fixtures when they are clean, are very sightly. The problem of keeping them clean, however, is an extremely acute one.

Some effort has been made to develop porcelain fixtures. The disadvantage in the past, has been that they have crazed and have not been durable.

There is now on the market a quick-pression basin cock,

The absence of nickel plating should especially commend this basin cock to hospitals.

which is illustrated by the accompanying cut. The spout and handle of this basin cock are made of a molded vitreous china of a special composition which the manufacturers claim, gives it unusual strength, coupled with permanent and immaculate whiteness and freedom from craze and checks. The mechanism is made of brass.

This basin cock has been subjected by the manufacturers to the following tests:

It has been immersed in cold water and then immediately put in boiling water.

It has been run over with a heavy automobile.

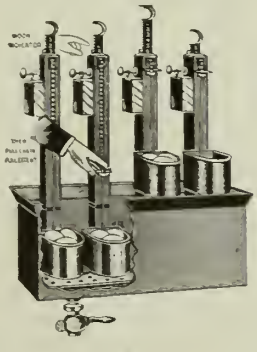
Hammered with a brass bar until the bar itself was badly dented.

Dropped six feet on a wooden floor.

The fact that there is no nickel plate to be scoured off and that vitreous ware can be kept clean more easily than any other substance, should give this basin cock an especial appeal to those interested in the equipment of hospitals.

ELECTRIC EGG BOILER

An electrically operated egg boiler recently put on the market is operated by means of a 1/200-horsepower motor. The eggs are put in the basket of the boiler, lowered into



An electrically operated device which boils eggs exactly the time indicated.

the boiling water, and the indicator is set for the desired length of time. Each timer has direct contact with the motor and operates automatically as soon as the eggs are lowered into the boiler; it disconnects contact with the motor when the eggs have boiled the desired time. The eggs are then automatically lifted out of the boiling water.

In the larger egg boilers one or more timers set for from one-half to twelve minutes can be operated at one time, the motor operating as long as eggs are being boiled. Either gas or steam boilers are supplied. In the small egg cookers three eggs may be cooked at the same time; in the larger, as many as one and one-half dozen.

CANADIAN MENTAL HYGIENE PROGRAM

As a result of the phenomenal development in psychiatry attained during the war, and the growing realization that mental factors play a great part in causing crime and delinquency, Canada has launched a mental hygiene campaign of broad scope. Since the organization of the Canadian National Committee for Mental Hygiene in 1918, facts concerning the past treatment of mental cases have been brought to light, and statistics concerning the facilities for mental treatment have been gathered. With this information as a basis for action, the provincial governments have undertaken plans for more scientific treatment of mental patients, and the erection of up-to-date institutions to care for persons suffering from mental abnormality or deficiency.

The report of the Committee for Mental Hygiene on the situation in Manitoba, showed that conditions had been very bad. The asylums were custodial institutions, and the care and treatment given the mentally defective were mediaeval. The patients were herded together, with no attempt at classifying or curing. The institutions had no laboratories and were greatly understaffed. With a view to changing these conditions an up-to-date system for caring for the insane and mentally defective has been inaugurated. In connection with the Winnipeg department hospital a modern psychopathic department has been established, through which all cases must pass for observation and diagnosis before being admitted to or discharged from any provincial institution.

The bad conditions found by the committee in Manitoba were typical of those in British Columbia, Ontario, and Quebec. The situation in Nova Scotia, New Brunswick, and Prince Edward's Island has been equally bad. However, as a result of the Committee's reports, British Columbia is planning to build modern institutions with the latest scientific equipment to care for mental patients. Ontario is building a reception hospital in the city of Toronto for admission of all patients suspected of suffering from any mental deficiency, and the other provinces are making plans to provide better accommodations and treatment for the mentally deficient.

In health there is liberty. Health is the first of all liberties, and happiness gives us the energy which is the basis of health.—Amiel: Journal.

Renewed impetus has been given to the work of hospital standardization by a gift of $75,000 from the Carnegie Corporation to the American College of Surgeons. This is the second gift made by the corporation to the college for hospital standardization; the amount of the first, made in 1916, was $30,000.

That man may last, but never lives
Who much receives, but nothing gives,
Whom none can love, whom none can thank
Creation's blot, Creation's blank.

—Gibbons.

FOREIGN CORRESPONDENCE

THE FUTURE OF BRITISH HOSPITALS

From Our Correspondent

London, March 10, 1920.

He would be a bold man or one gifted with remarkable sagacity, not to say foresight, who should predict with any degree of accuracy the future of the British hospitals. However, there appears to be agreement on all sides that radical changes must be made in their management and in the scope of their services if they are to be of the benefit to the entire community which it is obviously intended that they should be. It must be borne in mind that hospitals are not meant to serve only for the treatment of the sick poor, as seems to be the popular view in Great Britain. They were undoubtedly founded for this purpose; but times have altered. Hospitals, however, have not altered with them, or at any rate, have not kept pace with the changes. Now hospitals are or should be for the treatment of all stratas of society.

Prevention of Disease, Objective

Mr. E. W. Morris, house governor of the large hospital in the crowded East End of London, known as the London Hospital, has pointed out recently in the *Daily Telegraph* that—

(1) There are other people than the "sick poor" who need treatment. Most of us are too poor, when seriously ill, to afford the expense of the modern methods used for the diagnosis of disease and the equipment necessary for the successful treatment of disease.

(2) To consider the "sick poor" only is much too narrow an outlook. We have to consider the greater and more difficult problem of the prevention of sickness.

(3) The cure and the prevention of disease are not to be considered from the point of view of hospital treatment only. The homes, the conditions of life, the conditions of labor, the conditions of recreation are as important as the hospitals.

(4) You cannot dissociate the diagnosis of disease, the cure of disease, or the prevention of disease from the education of the medical student who is to carry on the work in the next generation. This signifies that in the prevention of disease, the medicine of the future, the hospital must play its due part.

It is notorious, as has been stated in a previous letter, that the hospital accommodation in Great Britain is very inadequate. The hospitals are frequently situated inconveniently. Their value is immensely minimized because they admit only most serious cases. If the province of a hospital is the destruction of disease in man, as is said to be the aim of the hospital of the future, there must be a change in the kind of case admitted. In Great Britain hospitals are charitable institutions, and as their beds are hopelessly too few for the needs of the population, the cases are admitted by selection; consequently, the worst cases only are taken in, and the less ill are sent away. If the object of treatment is mainly preventive the hospital's care should be given in the earlier stages of serious disease where a cure is possible.

Mr. Morris's scheme of reform, however, is not by State Control, or even by having pay hospitals or pay wards, (which method appears to be one of the most obvious ways of getting out of the difficulty, though one to which Britishers are generally averse.) Mr. Morris is in favor of a continuation of the voluntary system, with certain modifications, and, moreover, is opposed to an immediate extension of the service of the hospitals in London and in the other overpopulated centers. In his conception the hospital is a well-organized and equipped "clearing station" with its laboratories and special research departments, in which disease should be fought vigorously with all the resources of modern science. "It has to investigate, fight, and if possible destroy the disease from which the patient is suffering, both in that patient and in all other men and women who have, or may have that disease, just as smallpox and diphtheria and hospital gangrene have been fought and have nearly been beaten." A point that Mr. Morris makes is that according to existing methods of hospital treatment, the patient is kept in bed for a considerable time after he is out of danger, or after the physician or surgeon has done all he is able to do. Mr. Morris is of the opinion that after a week's treatment, provided improvement is insured, the patient should be moved elsewhere and the expensive equipment used for another patient. Thus, each hospital bed could serve at the same standing charges at least three times as many patients during the year.

Country Annex for Hospital

The patients should be removed in comfortable motor ambulances to a country annex of the hospital, situated about twenty miles distant, where the air is purer, land is cheaper, living is less costly, and the surroundings are better calculated to assist the work of recovery. The houses in this country retreat, the home of healing for body and mind (for it must not be forgotten that there is an intimate relationship between body and mind), would be huts or bungalows, with flower gardens and vegetable gardens, offering charm and rest to the eye, and in some cases, useful occupation. The future aim must be to make existence pleasant for the recovering patient. And Mr. Morris rightly lays stress on the fact that if it is beneficial to treat adults thus, it is by far more important in the case of children. Happily, a scheme is now afoot with respect to the large hospital for sick children in Great Ormond Street, London, to found a garden city for the sick children of London.

Book Reviews and Current Hospital Literature

FAULTY HYDROTHERAPEUTIC INSTALLMENTS*

That physicians do not obtain the best results from Hydrotherapy has so often come to the attention of the author that he has undertaken in this volume to direct attention to some of the causes of failure and the facile methods of removing them, not only in chronic, but in acute and sub-acute ailments.

Recognized and unrecognized failures in ambulant cases, treated in institutions, are often traceable to:

1. Faulty installments planned by otherwise capable and even eminent architects and plumbers, who appear to have no conception of the aims of hydrotherapy. Most of these are well informed in other branches of their profession, but either fail to obtain authoritative counsel or, singularly enough, decline to follow it.

To assist in remedying this serious condition, the author has introduced a chapter on hydrotherapeutic instalments, which is novel in works on hydrotherapy. Correct plans of existing institutions which have been in successful operation for many years are presented, and defects, gathered from actual observation, are briefly stated to serve architects as guides in the future. As such guides have hitherto been absent, the constructors of the cited faulty installments cannot, as is pointed out, be criticised, except in some instances for obstinacy, which has cost their clients much loss of time and money.

* * * * * * * * * *

Lest architects and plumbers may regard my strictures upon their desire to use their own judgment in the construction of hydrotherapeutic installments as unwarranted, the following instances from actual observations may serve to exonate me, especially since most of those errors were committed by men of the highest repute in their calling.

(a) The author consented to demonstrate the douche in one of the neatest douche rooms that have come under his observation. He discovered a sudden rapid lowering of the water temperature in time to prevent harm to the patient. On inquiry, it was ascertained from the engineer that the hot water-supply, pumped with an initial pressure of 149 pounds, was reduced to a very low (unascertainable) pressure after passing through the wards, bath-rooms, etc., of the entire hospital before it reached the douche table. The cold water-supply of the latter has its source in the city main at 40 pounds pressure. The attendant remarked that whenever water is drawn in the kitchen the douche thermometer jumped up and down very strangely. And yet this douche room has been in use for ten years, having been installed by one of the great plumbing firms of this country. The saddest part, showing indifference to correct hydrotherapy, is that the plans which the writer furnished by request for correction of these serious faults have not been adopted because of a few hundred dollars' expense. Some day a severe scalding accident will cost much more than this outlay.

(b) A very prominent plumber who had the contract for a hospital of 200 beds assured me that he would build a cooling apparatus for the douche table without my assistance. This was completed during my absence. A double box, the interspace filled with charcoal, was lined on the inside with 1-inch galvanized iron pipes. The box was to be filled with ice, on the pattern of a beer cooler. The result was that the initial pressure of 40 pounds was reduced by friction to 10 pounds, entirely inadequate for the douche. On my suggestion three kitchen boilers of 60 gallons were connected and laid upon the bottom, the first connected to the water main, the last with an inch pipe, leading to the douche table. Blocks of ice laid upon these cylinders kept the water at the temperature required to reduce the city water to any temperature required for douches.

(c) In several hospitals supplied by Mr. Frank Richter, who is one of the few plumbers I have met understanding hydrostatics, the engineer was so insistent upon avoiding a separate water-supply for the douche room that Mr. Richter was overruled by the Building Committee, whose aim was to save expense. Some of these hospitals were compelled to change their plumbing later at additional expense and long loss of use of apparatus. In one of the largest hospitals for insane in the country the douche was practically abandoned because the temperature fluctuated dangerously, as I learned from personal inspection ten years later.

(d) During the construction of one of the largest tuberculosis hospitals in this country I discovered accidentally that each floor of each of six pavilions had been provided with a douche room. Being requested by the commissioner to meet the architect, I inquired about these rooms. He answered that as his intention had been to build the most perfect institution in the country, he visited European sanitaria, in all of which he found more or less complete hydrotherapeutic equipments, which were absent in this country. In order to furnish the physicians every convenience and facility for the treatment he planned one douche room for every floor containing 25 patients, to afford easy access to the worst cases. When the author informed him that the latter were unfit for the douche, and that this hospital was intended chiefly for second and third stage cases, he exclaimed, "Why didn't the great experts in tuberculosis who inspected and criticised every-

*Advanced Sheets from the Preface of "An Epitome of Hydrotherapy For Physicians, Architects, and Nurses," by Simon Baruch, M. D., L. H. D., Hydrotherapeutist, Sea View Hosptal; Consulting Hydrotherapeutist, Bellevue Hospital; Consulting Physician, Montefiore Home and Knickerbocker Hospital; formerly Professor of Hydrotherapy, College of Physicians and Surgeons, Columbia University, N. Y. C. By courtesy of Wm. O. Saunders Company.

thing else inform me of the fact? They all approved of the douche rooms." The latter were almost finished when I saw them, but the apparatus, though contracted for, had not yet been installed. Two douche rooms have sufficed during the past ten years for all the work in this line. Here an outlay of $100,000 could have been saved.

(e) The medical directors of a city hospital in the West containing 100 beds requested the author to lay out a large basement, the plan of which was finished, for hydrotherapy. On inquiry regarding the number of outdoor patients, which are the chief, if not only, patients for the douche, it was learned that the average daily number was 30, including all diseases. On the author's advice the hydrotherapy room was abandoned.

(f) In two newly constructed pavilions of a large state hospital a fine hydrotherapeutic equipment is installed. The douche room is 20 feet square, with tile floor, containing a useless shampoo table at one corner and a douche table and circular douche occupying about 6x20 feet on the opposite side. Despite this ample space, the hot-air cabinets, three in number, are placed in an adjoining room 8 inches below the level of the douche room in such manner that patients walk from them in a nude state, often freely prespiring, past a corridor 50 feet long, in which drafts must always prevail. And no cabinets for undressing are provided. These fine rooms were not in use one year later when I saw them and recommended a change of plan.

(g) A trustee of a great hospital for research requested me to plan a hydrotherapy installment in order to make it "up to date." The author advised against it, because the number and character of cases would not warrant the outlay. The architects, however, called on me, and I laid out a small equipment, dwelling especially on the necessity that the continuous (hammock) baths, which I regarded appropriate for such an institution, be located near the wards in a separate room. What was my astonishment when I discovered two hot-air cabinets directly adjoining the door; these were separated by a marble wall from the continuous bath and the douche table on the opposite side of this small room. This arrangement necessitated the passage of all patients coming from the hot-air cabinets past the continuous bath-tub to the douche table. The patient in the tub, which is chiefly used for mania and delirium tremens, could be seen, and see every other patient and hear the noise of the douche flowing, etc.

(h) The author was requested by the Surgeon-general to render personal aid to the commanding officer of a base hospital in the arrangement of the douche apparatus, over which several expert plumbers and officers had been struggling. The architect had failed to provide a door sufficiently large to admit the electric cabinet, which was standing on the porch. The douche room (20x24) was provided with sufficient windows to serve as a green-house, no dressing cabinet had been provided. The hammock bath rooms, in which maniacal cases were to be treated, were without doors and located opposite a toilet and on a passageway through which all patients had to pass from the ward to the douche room. The author advised a space 6x20 feet on one side of the douche room after several windows were closed. This arrangement furnished space for the electric cabinets and the drying cabinets. Dressing cabinets were provided in the adjoining room that had been designated for massage tables. Of course, a door was enlarged for passage of the electric light cabinet.

(i) One of the most eminent firms of architects in this city sent its engineer to the author to examine plans for a hydrotherapeutic installment which had been laid out by a hospital construction expert who had previously consulted with me. Among other incongruities it was discovered that the room for undressing was located 70 feet from the douche room, and that patients would be compelled to walk the distance nude and pass through the rest-room. No one who understands the principles of hydrotherapy would provide a rest-room because the reaction obtained from the douche would be lost. All patients must go into the open after treatment. In this case the author's suggestions had been disregarded by the expert, who had visited him to obtain them several years previously.

(j) Learning that in a large clinic the director and engineer had decided to economize by connecting the douche table with the hot water supply of the building and removing entirely the wornout separate heater that had provided water at an equable temperature twelve years, I sent Mr. Frank Richter to urge reconsideration. Mr. Richter wrote me: "I labored for an hour to convince the chief engineer and Mr. ——, but failed to convince them."

It would not seem possible that any intelligent individual much less an engineer would fail to recognize the fact that when hot water is drawn from the common reservoir of a large building the temperature and pressure cannot be as stable as when drawn from a special tank connected with the main cold water supply.

The great need of these illustrated brief comments is emphasized by the fact that the faulty constructions mentioned were the product of the highest type of architects.

Aside from the fact that only a perfectly constructed installment may be dependable, another important consideration demanding strict following of the plans, is briefly outlined in the work, viz., When the apparatus ceases to functionate with precision or any part breaks by reason of imperfect material or construction, its repairs, sometimes involving removal, involve loss of time, during which treatment must be abandoned.

As has been mentioned, failure may be due not to the remedial agent employed, but to the manner of its employment, or the faulty construction of the apparatus. The same care is demanded in selecting the latter that is practised in the selection of correct surgical instruments and pure drugs.

CHILD WELFARE IN KENTUCKY. An Inquiry by the National Child Labor Committee for the Kentucky Child Labor Association and the State Board of Health. Under the direction of Edward N. Clopper, Ph.D.[7]

Kentucky has recognized the importance of protecting its children from premature employment and has enacted a labor law with standards higher than those of neighboring states, says Mrs. Loraine T. Bush, in Child Welfare in Kentucky. But are the children deriving from it all the benefit the state intends they should?

Indifference and lack of knowledge of the child labor law on the part of employers in certain towns are amazing. Abuse in the matter of permits largely defeats the child labor law. Except in Louisville, documentary evidence of age is rarely filed. Physicians certificates do not record, as required by law, the height and weight of the children receiving work permits.

The recommendations urge the adoption in Kentucky of the standards of the Children's Bureau with Periodical medical examination of all working children under eighteen years of age. Provision for inspection and enforcement under labor laws is essential for effective work.

7. Published by National Child Labor Committee, 105 E. 22nd St., New York City.

THE MODERN HOSPITAL

A Monthly Journal Devoted to the Building, Equipment, and Administration of Hospitals, Sanatoriums, and Allied Institutions, and to Their Medical, Surgical and Nursing Services

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NEW YORK'S NEW STATE HOSPITAL

By EVERETT S. ELLWOOD, Secretary, State Hospital Commission, Albany, N. Y.

THE first state hospital for mental diseases which New York has erected in over twenty years was inaugurated last September, when Governor Alfred E. Smith dug the first spadefuls of earth for the foundation of the new Marcy Division of the Utica State Hospital.

Though the Marcy plant, for the present at least, will be a division of the Utica State Hospital, and more easily and economically administered because of that fact, it will to all intents and purposes be a new institution. The Legislature has authorized $2,000,000 toward its construction, and when completed it will house 3,000 patients. Contracts have been let already for nearly a million dollars' worth of work.

The Marcy hospital represents the first big concrete result of the work of the Hospital Development Commission. During the past two years it has studied the hospital needs of the state, coordinating the scientific, financial and construction branches of the state government on the task, and has laid out a program for systematic development over a term of approximately ten years.

General View of the Utica State Hospital, Marcy Division.

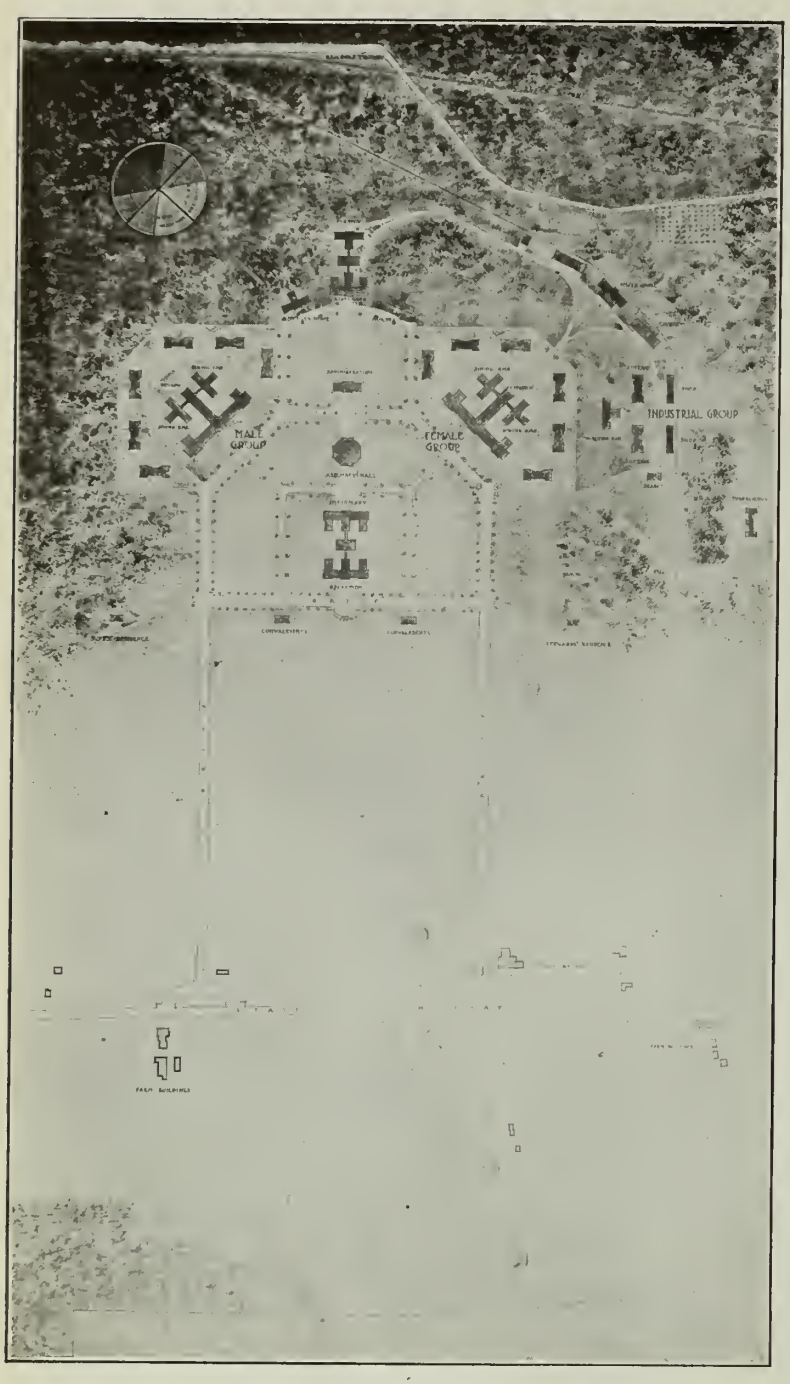


Fig. 1. Block plan of the Utica State Hospital, Marcy Division.

In designing the plans for the building and in their arrangement and equipment, the state architect, Lewis F. Pilcher, has very successfully applied the principles put forth by modern psychiatry in regard to housing, care, and treatment of mental cases. In construction, the Marcy institution will represent the best of current scientific thought. The new hospital will also be notable in another respect—viz.: it will be the first of such state institutions to be wholly constructed according to a prearranged plan, with a predetermined capacity. In the past the state hospitals have not been constructed on such a complete, well-seasoned plan, and consequently, piecemeal enlargements of what were originally small institutions have in some instances resulted in buildings that are both lacking in adaptation to their purposes, and difficult and expensive to operate and maintain.

It is a striking coincidence that New York's newest institution for mental diseases should be constructed as a division of the Utica State Hospital, which, when erected, was its first insane asylum. This was well expressed at the inaugural exercises by Dr. Charles W. Pilgrim, chairman of the New York State Hospital Commission: "A little more than three-quarters of a century ago what was for so many years known as the State Lunatic Asylum opened its doors in the city of Utica for the care of the insane. As this institution was the first one of its kind which the state established, it is only fitting that we should be here to dedicate what will probably be the best planned and equipped hospital in the country for the care of the insane. When the Utica State Hospital was originally planned there were only about 800 committed insane persons in the state, and they were cared for mostly in almshouses and in jails, with the exception of a few who were cared for by relatives and in private institutions. Therefore, it may be said that the Utica State Hospital started the great movement for taking care of the insane, which culminated in the passage of the State Care Act in 1890."

The site of the Marcy Hospital, on the northern slope of the upper part of the Mohawk valley, six miles west of Utica, is one of the best institutional sites in the state. Its selection was due to the fact that it promised to fill the needs of the district which the institution is intended to serve, as well as the needs and comfort of the employees who so often pass their lives and rear their families in the neighborhood of the work. The resolution passed by the Association of Medical Superintendents of American Institutions for the Insane in 1850, to the effect that such institutions "should be easily accessible at all times," is as pertinent today as it was when made. The Marcy grounds consist of 930 acres of land with sufficient slope for drainage. The soil is of the highest fertility. The grounds are bounded on the south by the barge canal and

on the north by the St. Lawrence Division of the New York Central Railroad. The higher central portion of the site will be occupied by the main buildings, which will face the south. The power house, storage buildings, and laundry will be placed to the rear in the small valley which crosses the grounds at the extreme north.

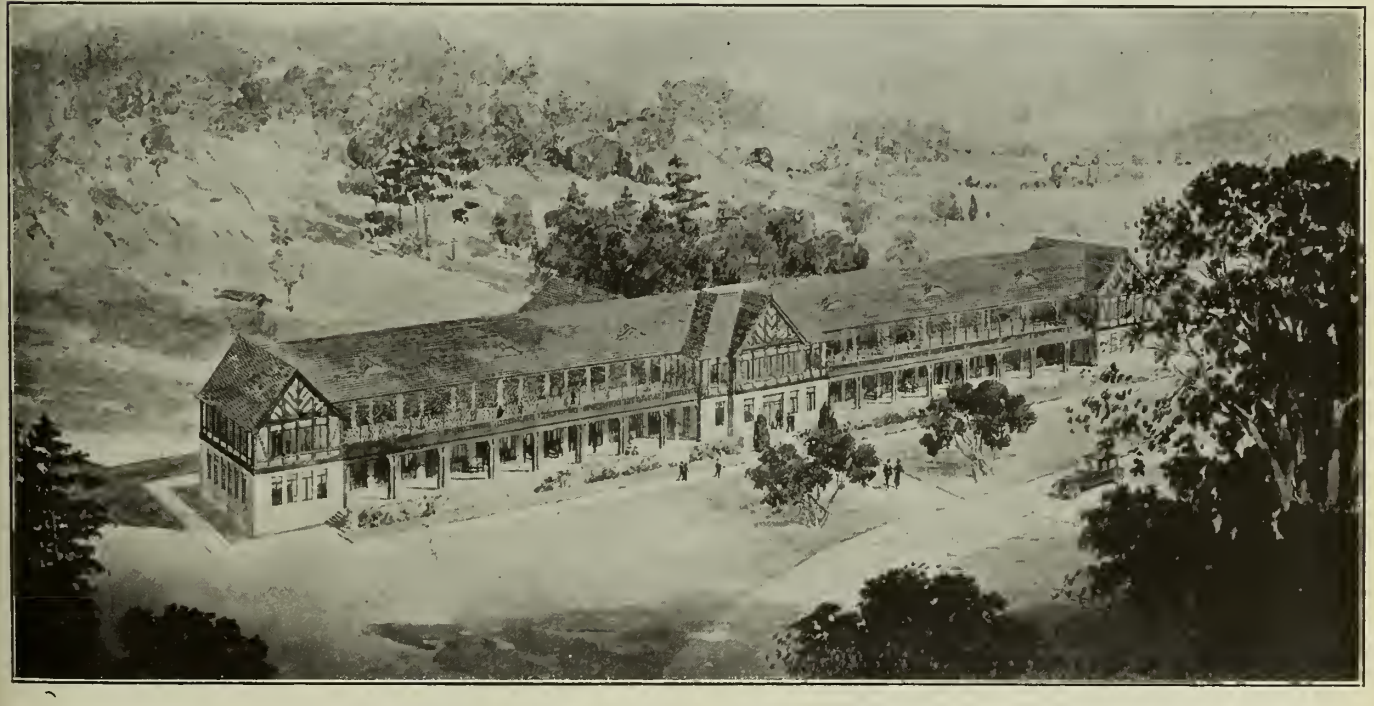
The water supply of the institution has been assured by the purchase of additional land to the north for the development of a large storage reservoir. From this reservoir the water will flow by gravity through the purification plant and will then be pumped to all parts of the institution.

By referring to the block plan (Fig. 1) one can readily appreciate the admirable arrangement of the buildings, which is well described by State Architect Pilcher: "The main hospital buildings are grouped in a scheme of design closely analogous to the Latin cross; the reception infirmary building forming the nave, the building for the disturbed, the apse, and the two chronic groups, the one on the left for the males, and the one on the right for the females, the transept. Continuing the metaphor,—the assembly building will lie midway between the porch of the nave and the crossing of the transept, while the administration building will occupy the same position between the transept and the apse. Southeast of these large main units, an industrial group is planned for the accommodation of 200 patient workers, and to the rear of this group and connected with it by a roadway and by a spur track from the St. Lawrence Division of the New York Central Railroad, the institutional laundry, the institutional power house, the institutional storehouse, and the mortuary. Turning towards the main entrance, the residence of the superintendent and the steward will be located, one on each side of the double driveway leading from the state road. Between them will be two buildings of 50-patient capacity each, for the accommodation of convalescents. To the east of these buildings, somewhat removed from the institution proper, there will be a hospital for the accommodation of 100 tuberculosis patients.

"Additional buildings will be erected later for the housing of institutional help other than the doctors, nurses and attendants; the only other buildings now planned, however, are two nurses' homes, dextrosinistral from the building for the disturbed, and a farm group of 200-patient capacity, which will be placed to the southeast of the State road."

The general plan of this hospital, as has been described, was developed in accordance with recommendations made after a very extensive study by the medical committee of the State Hospital Development Commission. This committee is constituted as follows:

Walter B. James, M.D., chairman, president, Academy of Medicine, New York; Charles W. Pilgrim, M.D., chairman, State Hospital Commission; George H. Kirby, M.D., director, New York Psychiatric Institute; Isham G. Harris, M.D., superintendent of the Brooklyn State Hospital; Carlos F. MacDonald, M.D., formerly



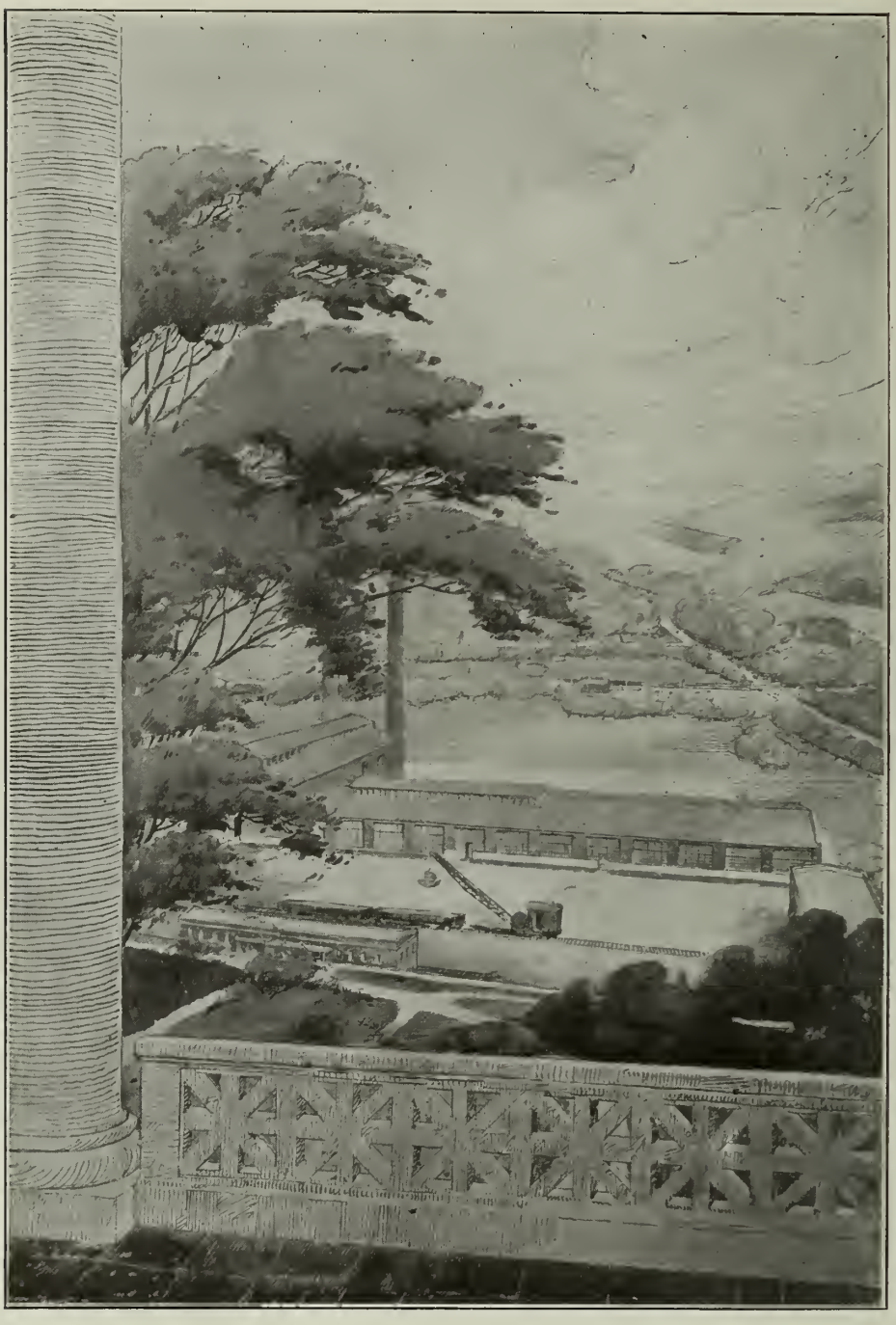
Tuberculosis Hospital of the Utica State Hospital, Marcy Division. Provision has been made in the plan of this building for intricate behaviorism classification and extensive therapeutic treatment of mentally diseased tubercular patients.

president, New York State Hospital Commission; Thomas W. Salmon, M.D., medical director, National Committee for Mental Hygiene; Frederick Peterson, M.D., formerly chairman, New York State Hospital Commission.

What has been said thus far pertains largely to the general layout and topographical features of the institution. Now let us consider the arrangement of the buildings and wards with particular reference to the provisions made for the care and treatment of the patients.

Building Arrangement

An earnest effort has been made to provide approved facilities for the most modern methods of treating various forms of insanity. In addition, the hospital spirit of cure is fostered in every building and ward. It is not only a humane obligation to the patients themselves but a distinct source of economy to the state, that as many patients as possible shall be cured, or improved, at the earliest possible date, and returned to their homes.



The back yard of the Utica State Hospital, Marcy Division. The power plant and the utility section are shown. In the distance the Adirondack watershed, the source of water supply for the institution, is located.

Those who are incurably insane, including the dementia praecox cases, will be given such care and treatment as will tend to raise the general level of their mental condition as much as possible. Recognizing the basic value of habit training for these deteriorating cases, which constitute over 50 per cent of the total patient population, an extensive program of reeducation especially adapted to such cases will be established and maintained. This includes curative work, or occupational therapy, prevocational training, gymnastic exercises, and other features which are of value in the rehabilitation of this type of patients. Special buildings for the work are included in the plan as outlined.

The committee of medical experts, after delving into every aspect of the problem, decided unanimously that the buildings of the Marcy Hospital should be arranged in seven groups. This will make it possible for the Marcy Hospital, as indeed it would make it possible for any other large modern institution for the care and treatment of medical patients, to institute a careful, scientific classification of patients, based on whatever principle might be thought most practicable, and thereby be in a much better position to render efficient therapeutic treatment to the patients.

Utica State Hospital, Marcy Division—Laboratory-Mortuary. "The torch and flame of the whole mental betterment problem is research." Provision has been made in this building for all of the necessities of laboratory experimentation; a museum record and history.

The buildings were arranged in seven groups as follows:

Group 1—Reception buildings	6%
Buildings for convalescents	4%
Group 2—Hospital buildings for the acutely sick	2%
Buildings for the infirm	8%
Group 3—Buildings for the disturbed, restless, and noisy cases	20%
Group 4—Buildings for the epileptic insane	3%
Group 5—Buildings for workers in the laundry and shops, and on the farm, grounds, etc.	40%
Group 6—Buildings for the quiet, clean and appreciative chronic class	14%
Group 7—Buildings for the tuberculous class	3%
	100%

The first group should consist of a reception building or buildings, and one or more buildings for those who are convalescent. It should have its principal outlook towards the south and be free from the view and noise of the buildings in which the chronic and excited cases are cared for. In fact, it should be possible to care for and cure many of the acute cases without having them come in contact with any of the unpleasant features necessarily associated with the care of the chronic and disturbed insane.

The size of the "reception hospital" will necessarily depend upon the admission rate more than upon the size of the hospital. Experience shows that the number to be cared for in reception hospitals is about one-third of the number annually admitted.

The question of separate buildings for each sex will also depend upon the size of the institution, but, as a general proposition, the committee recommended separate buildings for both the acute and convalescent cases. For the sick and feeble this question need not be given so much consideration.

The second group should consist of buildings for those who are acutely sick, for surgical cases, and for those who either have reached, or are approaching the stage of physical helplessness.

The first two groups should bear a fairly definite geographical relation to each other, as they will house the patients who require the most intensive medical care.

About three per cent of the state hospital population is tuberculous. These cases should be cared for at a little distance from the other patients, in one-story buildings of special design, having a southern exposure, a protection from northern winds, and accessible grounds so that much of the time can be spent out of doors in suitable weather. The tuberculous patients are provided for in group seven of the summary.

The remaining groups comprise very largely

the buildings for the care of the chronic insane. This is no less a medical problem than the care of the acute patients. In fact, it is often a more difficult one and requires the same high grade of knowledge and experience in solving it. It should be borne in mind, however, that, for psychological reasons the medical and nursing features should be emphasized more strongly in the care of the curable cases than in the care of the so-called chronic types.

By care in selecting the location of the administration building, the superintendent's residence, the staff house, and the nurses' home which should be near groups one and two, it is possible to make a well defined line of demarcation between the groups caring for the curable types, and those housing the chronic and disturbed. Such a separation is also facilitated by locating the amusement hall, the chapel and mortuary in the center of the institution. On the side of the site opposite to that occupied by the buildings for the acute, the remaining groups will provide accommodations for a great majority of the population as follows:

Group 3. Buildings for the disturbed, restless, and noisy, who constitute about 20 per cent of the population.

Group 4. Buildings for the epileptic insane, who constitute about 3 per cent of the population.

Group 5. Buildings for workers in the laundry and shops, and on the farm, grounds, etc., who constitute about 40 per cent of the population. These buildings should be so located as to prevent too much loss of time on the part of the patients in getting to and from their work.

Group 6. Buildings for the quiet, clean, and appreciative chronic class, who make up about 14 per cent of the population.

The power house, storeroom, and other service buildings are located on what might be called "a service street," or avenue, which should be approachable by rail so that supplies can be received in carload lots.

The question of floor space and cubic air space is one of great importance, particularly at this time when the cost of construction is so high that it is necessary to limit the size of the building insofar as is consistent with the purpose of the building and the health of its occupants. The medical committee made a thorough study of the subject and after conference with superintendents of state hospitals and the State Commissioner of Health, it adopted as its standard for housing the following requirements per patient:

50 sq. ft. floor space in dormitories.
40 sq. ft. floor space in day rooms.
14 to 15 sq. ft. floor space in dining rooms.
70 to 80 sq. ft. floor space in single rooms.

The size of the single rooms, viz.: from 70 to 80 sq. ft., may be considered meager, but it is advisable to make the single rooms small enough so that there will be no temptation to crowd two patients into what was originally intended for a single room.

The allowance, given above, represents the maximum space requirement, and whenever the ceiling is very high, or unusually efficient ventilation facilities are afforded, it would be safe to reduce slightly the number of feet allowed per patient. The number of single rooms should be sufficient to provide for fifteen or twenty per cent

Psychiatric Reception Hospital, planned for a Curative Clinic for persons afflicted with mental disease, Utica State Hospital, Marcy Division.

Custodial Building of the Utica State Hospital, Marcy Division. Laboratory-Mortuary of the Utica State Hospital.

of the population, varying with the character of the cases to be cared for.

The dormitories and dining rooms of the Marcy Hospital will be of medium size. It is planned to have the dormitories limited to a maximum of fifty beds, and, wherever it is deemed advisable to provide for more than fifty patients in any single dining room, the space will be broken up by dwarf partitions dividing the main room into groups of 50 or less patients each, thus providing a certain degree of privacy for the patients when sitting at the tables.

A complete modern state hospital must have a well organized out-patient department. Adequate provisions will be made at Marcy for the patients on parole to meet with their former physicians and the social worker of the hospital, to receive medical advice pertaining to their mental health, and instruction in regard to their program of living. The same kind of attention will also be given to individuals in the community who wish to consult with medical experts in regard to any phase of the subject of mental disease. In addition to the work done at the institution, other mental clinics will be maintained in the various centers of population throughout the district which the hospital serves.

In describing the plan for the Marcy Hospital I have gone into considerable detail inasmuch as these plans represent the consensus of expert opinion and are the result of serious and extended study. They should, therefore, be of value to authorities in other states upon whom has been placed the responsiblity of planning and overseeing the construction of institutions designed for the care of mental cases.

It would be an error to conclude that New York's new hospital cannot be improved upon, for the science of medicine is not a fixed science, but is constantly changing and progressing. Therefore, an institution which today may be the embodiment of the best of medical thought and experience, will sooner or later have to be remodeled in certain features to make the care and treatment accord with future findings of psychiatry.

NEW FEATURE OF TOLEDO DISTRICT NURSE WORK

The Toledo District Nurse Association which has been doing excellent constructive health work among the poor and uneducated of the city, has introduced a new educational feature of inestimable value. To the duties of Household Educator has been added that of teaching classes of children, ranging in age from seven to fourteen, the principles of right eating. At these nutrition classes which meet once a week at the dispensary, charts are used showing by the picture method what should and should not be eaten. Talks and stories on health subjects are a part of the program, and the children are given weekly charts to be filled out at home giving information as to what they have eaten each day, how much water they have drank, how much play time they have had, how much sleep, and how many hours they have spent in school. Each child is given a thorough examination by a physician, is weighed once a week, and is measured for height every three months.

The Household Educator's general line of duties is to instruct mothers of families concerning the proper choice, purchasing, and cooking of food, to aid them, when necessary, by supplying either funds, or the essential food, to obtain a well balanced ration, and to instruct them in all phases of practical household economics. During 1919, the Household Educator made 978 calls.

A VISUALIZATION OF WHAT HOSPITAL STANDARDIZATION MEANS TO A COMMUNITY*

By FRANK E. CHAPMAN, Superintendent, Mount Sinai Hospital, Cleveland

I DO not like to think of a hospital as an inanimate object. I want to think that a hospital cannot be standardized. I want to believe that a hospital is an idea, not something inert—a building of brick or stone. The most mediocre physical development, properly imbued with an idea of what a hospital should be, can make an exceptionally fine institution.

The Basis of Standardization

Any standardization program, no matter what the medium of expression, is predicated upon the assumption that man is fundamentally good, and that he is attempting to do the best possible with the facilities at his command. Working upon this assumption, it has seemed incumbent, in view of very definite need for improvement along certain lines, to present to various institutions a somewhat different point of view than the one they enjoy, attempting to make them realize certain deficiencies they have—deficiencies which exist not through any desire on their part, but which are due to a seeming inability to understand very definite obligations that are theirs by reason of their position in the community.

I shall take up seriatim the three general classifications outlined.

Obligations of an Institution

It is an old saying that no organization is any greater than the staff that mans it. May I be permitted to plagiarize and say that no hospital is any greater than the vision of its administrative body? It has been my privilege to look intimately into the affairs of approximately two hundred hospitals in the past year, large, small, and medium-sized—good, bad, and indifferent—benevolent and vicious. The preeminent point developed by this investigation is the absolute lack of understanding on the part of boards of trustees of their obligation to their institutions and to the community that they serve. In a large percentage of cases the indicated attitude, if not the spoken one, would show that they felt the hospital did not extend beyond the four walls; that they were primarily interested in the patient, or in some instances, in the patient's doctor; and that the state of this patient before he came to the hospital, or his disposition when he left, was of no interest to the institution as a whole.

Permit me to present a slightly different point of view as to the obligations of the administrator of a hospital. It is my understanding that a hospital which deserves the title "community hospital" can not do other than be vitally interested in the entire communal health problem. It should be the desire of the administrative body to make the institution the health center of the community it serves. It should be the desire of the board of trustees to create in the minds of the members of the community the thought that the hospital is a composite of a large part of the medical wisdom of the community. It should be their desire to have the community feel that the members of the staff are appointed for the reason that they have demonstrated to the administrative body their ability to administer to the wants of the patients in their respective specialties, and for that reason are worthy of every confidence of the patient. It should be the desire of the administrative body to have the influence of the hospital felt throughout the community, not in the number of patients that are treated within its walls within the shortest possible time, but the character of the work done. It should also be their desire to have the knowledge gained by such a performance permeate the community and be productive of better health for the whole community.

If these points of view are correct, and if the administrator is conscientiously trying to serve to the maximum of his ability, then, as administrator, he has very definite obligations to the community. These obligations, as I see them, are as follows:

1. It is absolutely incumbent on the administrative body to know that every individual permitted to practice within the walls of the institution is as proficient as it is humanly possible to be in his or her respective line of work.

2. In addition to his or her medical knowledge, this individual must always carry uppermost the best interests of the patient, thoroughly alive to his responsibility; in fact, he should typify those things that we admire and honor in the true physician. You will please understand that neither an open nor a closed staff organization is recommended. There are certain conditions presenting themselves in various communities that do not permit of as close an organization as may be desirable from an administrative point of view, and

*Read at the convention of the Ohio State Nursing Association and League of Nursing Education, Toledo, O., May 6, 1919.

it is submitted that the open or closed staff question is not a pertinent one. But a controlled staff is very strongly advocated. By a controlled staff is meant that there be a thorough knowledge of what each individual member of the staff is doing in the institution and without. Such a knowledge can be obtained only by a systematic perusal of the work of all individuals practicing in the institution—not by picking out isolated cases, but by an analysis by broad-minded individuals of the continuous performance of each individual. These things I think are pertinent.

3. The next obligation is that the administrator must offer every facility consistent with good medical practice to the members of the staff for the proper diagnosis and care of cases. In these advanced medical times it is almost inconceivable that an up-to-date practitioner of medicine can make a diagnosis without the aid of the x-ray machine or the laboratory; yet may I say to you that not 10 per cent of the hospitals in this country have a laboratory equipped to make even the simplest kind of laboratory diagnosis? And I question if 10 per cent of them are equipped to give medical roentgenological finding. In talking with the personnel of hospitals as to why these deficiencies exist, one is met with an excuse of lack of funds, lack of desire on the part of the staff, lack of appreciation on the part of the board of trustees of the need, and various other excuses too numerous to mention. Let me suggest that there is not a community in this whole land capable of maintaining a hospital that has not some one individual who, if properly approached and made to understand the need for such facilities, would not willingly finance the installation of such equipment and see to its maintenance. It is simply a lack of understanding on the part of one, and a lack of desire or energy on the part of the other.

4. Another obligation of the administrator is to know that, after a capable staff has been appointed and the facilities for proper diagnosis and care of disease furnished, the staff make use of the facilities that are provided. This, of course, is covered in part in the first obligation, but it is a point that can stand emphasis.

5. Still another obligation of the administrator is to know that the members of the staff are contributing, in a small way if you please, the result of their experience to the medical world. The hospital offers the only possible clinical laboratory there is. Is it not a shame that such facilities should be wasted, and that the material developed should not be presented to the medical world, permitting it to enjoy the observation of others? Please understand I do not mean that members of the staff must do a lot of self-advertising on mediocre or hashed-out material. If the staff as a whole could present one original thought a year, imagine, if you can, the cumulative effect. There are over six thousands hospitals in the United States and Canada. Six thousand new thoughts in medicine would do much toward alleviating the suffering of the human race.

These, as I understand them, are the obligations of the administration. There are in addition, of course, the physical and administrative obligations, but these are not pertinent to the present thought.

Obligations of the Staff

The noblest calling in the world is, in my opinion, represented in the work done by those who care for the sick. The ideals that are essential to such work and the intimate contacts that are made in the practice of such a profession produce a status for the profession that is approached in no other walk of life. By reason, therefore, of the pedestal that is builded, the example is so pronounced that, when one does fall from grace, the reaction is all the more despicable. To my mind, one of the most distressing things of life is the professional man who has forgotten the ideals of the profession he has embraced, and who has prostituted himself and his profession by the application of sordid economic procedures to his daily professional life. Another type that presents itself is the man who has graduated from a medical school and who, after graduation, is perfectly content to drift along in an aimless sort of way, treating patients as he was taught, with no attempt on his part to improve his knowledge of his profession, except by what limited experience he himself may develop. These are the two types of practitioners that make it possible for some of the cults to develop the idea that the medical profession are fighting.

I should like to give you my idea of what an ideal hospital staff means. First of all, to be efficient, a medical staff, like any unit of any organization, must coordinate. To do this, it is absolutely essential that an *esprit de corps* be developed, and, if it is developed, members of the staff will automatically consider it a privilege to be associated with the institution. They will be proud to do everything possible to contribute to the good name of the hospital, and automatically to contribute to their own fame. I should like to feel that they are vitally interested in the welfare of every other individual who practices in the institution, that they not only will do nothing to harm, but that they will do everything to help,

their confreres—not only men of equal rank in the institution, but the younger man, also, with a view to helping him practice medicine on a higher plane than would be possible without their help. It would be ideal if they would take sufficient interest in their profession and the institution they are serving to see to it that every possible advantage is offered to the medical man in training in the institution, and to the nurse who is spending valuable years of her life in perfecting herself in a kindred profession. If such a spirit can be developed in the staff, whether it is a closed or open staff, the patient in that hospital cannot help but benefit by such a spirit; and, after all, is it not the patient that we are interested in more than anything else? With this end in view, there are certain very definite needs of an institution that must be furnished by the administration, but that are absolutely impossible of perfecting without the cooperation of the staff; and it is these things that the standardization program has most to do with.

Medical Records Lacking

One of the saddest commentaries on medical practice in institutions is the absolute lack of records of medical performance. Members of boards of trustees are, as a rule, successful in their personal commercial life. In their business they secure an accounting system that is efficient, one that will show them at a glance where they stand, but in their philanthropy they permit a performance more precious than the performance of dollars and cents, and much more complicated than the performance of any manufacturing business, to go on without any records worthy of the name. It is suggested that, for the protection of the patients, for the protection of the hospital and for the protection of the physician, a definite record be kept at all times, showing just what has been and is being done for the patients.

On surgical cases it is suggested that administrative bodies insist upon the making of a preoperative diagnosis. The result of operation should then be watched, to see what percentage of cases of each operator demonstrates the correctness of the preoperative diagnosis.

It is suggested that it is part of the obligation of the institution to be able to show to the patient in after-years what procedure was instituted in the hospital for his care. With the type of records kept in most institutions, this is an absolute impossibility. It is believed, further, that if members of the staff are obliged to record in detail just what is done, they will be more careful what they do. It is believed that efficiency methods can be applied to the practice of medicine just the same as they can be applied to other walks of life, and that, if members of the staff realize that these methods are applied not in an antagonistic state of mind, but rather that any suggestions made are advanced constructively, with the better men of the individual's performance, and the care of the patient as the primary motive, they will not only welcome such action but give it their hearty cooperation.

Bear in mind, however, that such a procedure has to be carried out in a tactful way, always considering the rights of the individual, and always remembering that "to err is human." Do not expect a perfect performance. Much can be excused if the motive is right, and if, after a series of analyses, you can demonstrate that an individual has made a conscientious endeavor to function, you can then be assured that your efforts are productive of good. Experience has demonstrated that the establishment of a proper system of medical records is oft-times combated by the staff at the off-set and that there is great difficulty in such an establishment, but the same staff, after having been compelled to do things along these lines and having seen the benefits of such a system, would be loath indeed to return to the old haphazard method formerly employed.

I should like to feel that the caliber of my staff is such that they would not countenance a medical practice that did not include a checking up of their clinical findings by every means possible, and that therefore they would not practice in an institution that did not furnish them every possible laboratory facility, pathological, serological and roentgenological, thus making it incumbent upon the administrator of the hospital to furnish the pertinent things for scientific diagnosis and care.

Relation of Community to Hospital

The feeling of the community in a very large percentage of cases is commendable. As a rule they believe that their hospital is the quintessence of all that is good in hospital practice, and they do not countenance very much discussion of the status of service rendered. Is it not therefore the obligation of the hospital to make this a fact as well as a theory? In a large percentage of cases hospitals go to the community for support. The community has reason to believe that the hospitals is functioning as efficiently as it is possible for an institution to function.

The trend of the time is improvement, much of the improvement, in fact all of it, coming through education. I believe the time is past when we can hide our performance under the cloak of secrecy. I believe the time of inefficient hospital practice is

passing, and I believe it is passing because of a better understanding on the part of boards of trustees and of the community as a whole as to what good hospital practice is, and a growing demand that hospitals which look to the public for support shall conduct their affairs in such a way as to furnish as good medical and hospital practice as is possible to secure. That the public is beginning to be interested is evidenced by inquiries from members of communities, by the character of articles in leading magazines, and by the growing interest in affairs of hospitals by men of ability in commercial life. Just let me present another phase, but one that much be reckoned with—the fact that health insurance under state supervision is becoming nation-wide. This will make it incumbent that beneficiaries be returned to the productive state as quickly as possible. It is to be assumed that this can be accomplished most quickly in an efficient hospital. Does it not follow that hospitals will be graded as to their equipment and performance?

Shall the "Big Stick" Be Wielded

If these things are true (or if only partly so), is it not better for hospitals to set their houses in order of their own volition, rather than be compelled to do so? I should like to think that we do right because we want to, but unfortunately this is not always true, and it may take, in the words of one of America's greatest idealists, a "big stick" to bring us in line. That there is need of improvement no one who is at all conversant with the true situation will gainsay. I question whether if some communities knew internally some of their hospitals, they would be as free with their support.

You may think that most of the things I have set forth herein are intangible. Please recall that I prefaced my paper by saying I believed a hospital was an idea. I do not believe that the things we want to accomplish can be accomplished by a process of revolution, but that constant hammering on the part of all interested in a better hospital practice is bound to produce an evolution of thought that will but react to the betterment of the practice as a whole.

My sole thought in giving this message is to try to instill a higher ideal, if possible, of what the medical profession means, and express the hope that, by example and through intercourse with others, those who desire to improve the character of hospital work will spread the ideals of better hospital practice, until the cumulative effect will compel compliance on the part of those institutions that now have neither the vision nor the apparent desire to do so.

THE INFLUENCE OF COLOR FROM A THERAPEUTIC STANDPOINT

Some interesting observations on the influence of color therapeutic standpoint especially in relation to the colors in a hospital are made by a writer in *The British Journal of Nursing*. Attention is called to the subtlety and elusiveness of a "color scheme" when we go beyond the mere act of perception. Often it only requires the proximity of two colors to entirely alter the tone of both. Then, too, how can we tell that all shades are perceived in the same way by different individuals? Of course color blindness, in a positive sense, does exist, but there also may be gradations as regards our individual perceptions.

In regard to "color schemes," nature is the best teacher. All the colors of the spectrum and all the shades and tints of these colors are found in nature, and yet the whole is one complete harmony. From a therapeutic standpoint, not only the color itself must be considered but all the gradations of that color, the tastes, temperament, and physical condition of the person whom it will influence, the way in which he may perceive any given shade, and perhaps even the association with it that may exist in his subconscious mind. All this leads to the conclusion that if color were to take an important place in therapeutics, certain rooms in the hospital would have to be set aside for certain forms of disease. For instance, a color suited to a very excitable patient would be quite different from that suited to a patient exhibiting symptoms of another kind.

This leads us to the deeper question of whether it is the color actually visualized which influences the patients or its complement—art color. If it is the complementary color, many of the accepted theories on color in the hospital are shaken. Gray, for instance, which has been such a popular color for the sick room, has black for its complementary color. Color visualized outwardly appears to produce its complementary color inwardly. For instance, if one looks for a time at a certain shade of red, closes the eyes, and then directs them on a piece of white paper, a shade of blue-green will appear. Now will it be this color or the red which will influence the person? It seems to the author that the sense of color created by the person will affect him most, and that therefore the color which should be selected as part of the treatment for some condition should be that which will evoke inwardly the complementary color judged to be most suited to the patient's state. On this assumption, a red room, after the first few minutes, would actually produce the effects which one would have expected from the complementary shade of green. In support of such a theory we might again refer to the supposed "restfulness" of gray; yet what is more depressing than a gray day? What is there restful or soothing in a sky of thick, soft, gray clouds?

The effect of color is realized when we consider that much of the feeling in a masterpiece is lost when we look on a representation of it without color. May it not be the feelings which those colors create within ourselves which give to the pictures their power? We may find in the pictures of the old masters object lessons in new fields for intellectual activity on the influence of color upon the mind, and, through it, upon the health of the body and the cure of abnormal conditions.

It is one of Montesquieu's subtle remarks that the more wise men you heap together, the less wisdom you will obtain.—Amiel's Journal.

THE RELATION OF THE LIBRARY TO THE HOSPITAL

By JULIA E. ELLIOTT, Director of "The Indexers," Chicago

THE library is the literary research laboratory of the hospital and bears the same relation to effective service as its other laboratories. Indeed, it may be a more potent factor in progress than any one other department, because, properly administered, it contributes to the progress of every other department. Its function is to furnish information on all hospital activities, from the work of the chief of staff to the newest intern, or nurse, and from that of the superintendent to the humblest janitor's helper.

How can the library, the literary research laboratory of the hospital, contribute effectively to the progress of every other department?

The most potent factor in education is the interchange of ideas and experiences. The ablest men in the medical profession are the quickest to seek and benefit by the experiences of their colleagues. Expert clinicians, as well as interns, nurses, and administrative staffs must augment their experience by the experience of others.

How can this scientific information be more easily obtained than by consulting the library, which consists of a live collection of authentic printed matter?

Every hospital is an educational institution, whether it consciously aims to be or not. It stands in the relation of a postgraduate school to the members of its staff and it is bound to furnish adequate equipment in every department, in order that through the continuous education of that staff it may adequately serve its patients.

The most potent factor in education is the interchange of ideas and experiences. In the medical profession that is effected, first, through personal contact and clinics; second, through medical societies and associations; third, through the medium of the printed page; fourth, by the dissemination of literature through libraries. The limitations of the first and second methods of exchange are self-evident, and are overcome by the publication of transactions of societies, private papers and stenographic reports of clinics, thus establishing the third medium. For an individual to own all the literature that he may want to consult at any time is manifestly impossible, both from the standpoint of expense and space. Each doctor will own, in time, his own special collection of journals and books, but he must look to a larger organization for the literature that he uses only occasionally. Hence the fourth method of exchange is an economic necessity, and central libraries must be established to supplement the libraries of older practitioners, and to supply the younger men who have not yet been able to acquire a private collection.

What more logical place can be found in a small community for this central library than the hospital? If a community has more than one hospital, then there should be cooperation and a division of subjects in developing the libraries, taking into account the special service which each is endeavoring to render. If this plan is not feasible, the local medical society should establish a central library, possibly in connection with a local public library, in which case the hospitals may limit their library activities to the immediate needs of the resident staff, and draw upon the society library as a cooperating institution.

This central library outside of the hospital does not, however, stand in place of the hospital library, which should bear the same relation to the central library as classroom libraries in a college or university bear to the main library. An attractive, restful reading room, light, well ventilated and centrally located, equipped with a few standard reference books and the most important current medical journals, is still essential in the hospital, in order that the spare moments of members of the resident staff may be utilized if they desire, and that all may be encouraged to continually supplement their daily experiences with a knowledge of the practice of authoritative leaders.

Functions of a Hospital Library

The functions of a hospital library, whatever its size, may be divided as follows: 1, service to the visiting staff; 2, to the resident staff, interns and nurses; 3, to the administrative staff; 4, to the patients.

1. Service to the visiting staff.—The ablest men in the profession are the quickest to seek and benefit by the experience of their colleagues. In the greatest clinics in the country you hear men eminent in their chosen specialty asking advice of visiting clinicians on some stubborn case that has defied all their science and art. The great clinicians are the great students. Not one goes

to clinic or private sick room where a puzzling case awaits him, without reviewing what his colleagues have done under similar circumstances. The first function, then, of the hospital library is to place at the staff member's command the very latest and best information on any subject about which he needs to know.

Perhaps tomorrow the chief of staff is to conduct a clinic designed to illustrate the different procedures for benign and malignant pelvic tumors. The librarian, who keeps posted on the schedule, promptly gathers from all sources the most important literature on the lesions and procedures under consideration; first, for the chief surgeon to review the literature to which he intends to refer in his clinic; second, for the interns year. The librarian, knowing this recurrence of a dread disease is expected, has collected all the recent literature, in anticipation, not only from the library files, but reprints of importance from other sources. With the material at his elbow, even the busiest intern can find time to keep informed.

2. Service to the resident staff.—The younger men come to a hospital as interns, or into a community as practitioners direct from college, where they have had libraries at their command. Their use of these libraries may have been limited for lack of time, but at least they have learned something of the use of books and their value. At the most critical period in their experience, when the guidance and the inspiration of instructors is

An attractive, restful reading room, which is light, well ventilated, and centrally located, at the Mayo Clinic, Rochester, Minn.

to familiarize themselves with the pathology and technique in advance. This review of the literature may modify the surgeon's technique; may warn of unsuspected anomalies found by a colleague in a similar case; may describe complications not before met with in his experience. For the intern, the advance study quickens his perceptions, helps him to recognize variations in technique made necessary in an emergency, to grasp with keener intelligence the procedure followed, to compare it with other methods, and to understand better the postoperative course.

Or, an epidemic of influenza is imminent. Perhaps some discovery has been made since last withdrawn and before his own experience has begun, they are thrown upon their own resources, or, in the case of the intern, are dependent upon the visiting staff members for the continuance of their education. Not all students may have the advantage of serving their internship under the great leaders in the profession. The nearest they can approach it is through the printed page, which delivers the message they seek. It is the right of every graduate student to find in the hospital which he serves and which in turn agrees to serve him, the means of keeping in touch with the advancing thought of his professional leaders and colleagues. The function of the hospital li-

brary in relation to the intern, therefore, is to supply him with the best literature in every case or procedure in which he may be personally concerned; to afford him an opportunity to pursue his study of any particular subject in which he is interested; to place at his disposal the best current medical journals for general reading; to make his internship, in fact as well as in theory, an all round postgraduate course.

The pathologist, laboratory technician, roentgenologist, and nurses have, in their turn, positive claim upon the library to supply the authoritative literature upon their subjects.

3. Service to the administrative staff.—A new record system is to be installed. The training and experience necessary to classify and index a library is exactly what is needed to classify and index records. These records in manuscript are merely unpublished clinical reports and are as much a part of the library as the published reports of other hospitals. The organization of these records, together with that of the plates and records in the x-ray laboratory, should be closely correlated with that of the books in the library; for example, in a study of a series of cases to determine the reason for a high mortality, the records of other hospitals and communities are essential as a basis of comparison. The former information is obtained from the index to the case histories; the latter through the catalogue of the books. The importance of a uniform method of handling all of these sources of research is at once apparent, while it also facilitates the use of the hospital records in the daily routine.

A new filing system is to be installed in the office. As if by magic, the superintendent finds on his desk two or three excellent books on office management, borrowed from the nearest public library, and he is surprised to find that this same training and experience which is essential in indexing books and records is equally valuable to him in planning and installing an adequate correspondence file.

Perhaps the trustees are contemplating changes in the building, the rearrangement of wards or of kitchens, or the erection of a new wing. The librarian gathers plans and suggestions from every possible source.

The library is the literary research laboratory of the hospital, and should not be a collection of ancient, dust-covered volumes hidden away in dark corners. The illustration shows the stock rooms of Mayo Clinic, Rochester, Minn.

4. Service to the patients.—The patients' library has been thoroughly discussed in a preceding article in this journal and need not be elaborated upon here.

There is not an activity in the hospital that can not derive benefit from a wisely managed library with a very small collection of volumes but with an administrator who knows sources.

It is very plain that the library we have in mind is not a collection of ancient dust covered volumes, hidden away in dark corners or behind locked doors or in some inaccessible room, with

books piled one upon the other from floor to ceiling, or in double rows on shelves one behind the other, or in every conceivable way to discourage their use except by the most persistent and patient research student. On the contrary, it is a live collection of printed matter, wisely selected, properly organized, and intelligently administered. For a hospital it consists, first, of the best current journals, selected to represent each service. This literature, well indexed, gives the very latest conclusions of the most eminent men in the profession on subjects desired, at a moment's notice. Second, a few good standard books; possibly two or three hundred will cover the needs of the average hospital. Third, pamphlets and reprints that are not duplicates of articles in journals on file. These, with the bound volumes of the journals are the essentials.

A quiet corner in the Lakeside Hospital Library, Cleveland, Ohio.

As the library grows in size and usefulness, other collections may be added; photographs and clippings of the occasional articles of value in the ephemeral magazines; hospital supply catalogues; museum specimens; everything that may contribute to the educational value of the hospital. These books and pamphlets, classified by subject and thoroughly indexed, make it possible to find at a moment's notice whether the thing you are looking for is in your library. They are kept dusted and accessible in open cases. There is nothing sacred about them. They are expected to yield their information at any time and any place to any one who needs it, and the quicker they are worn out from intelligent use, the quicker the library justifies itself.

This library is not limited by four walls and the content of its own shelves. It is connected with all the outside agencies that can in any way contribute to its needs: the larger library in the nearby city, or in the state capital; or, the Surgeon General's library in Washington, from which may be borrowed, for the cost of transportation, any volume in that vast collection. It is in touch with book stores, publishing houses, and every agency that makes it a business to furnish information quickly.

Throughout this article reference has been made to the administration of this library. A laboratory with the finest equipment, without a trained pathologist or technician, is worthless. The same is true of a library. This need not, however, discourage the hospital with small resources, because just as it may install for its own use a small laboratory for the simplest tests, and depend upon outside laboratories for the more elaborate ones, so each hospital may have a small library with the essentials for daily use, supplement its material by drawing upon other libraries, and depend upon some outside agency for expert organization and administration. Every hospital library may have the kind of service described. How it may be adapted to hospitals of different sizes and localities is another story.

WHAT SHOULD PRIVATE PATIENTS PAY?

By S. S. GOLDWATER, M.D., Director, Mt. Sinai Hospital, New York

IT IS the duty of hospitals which undertake the care of both the poor and the well-to-do, so to adjust their charges that money donated for the benefit of the needy will not be applied for the benefit of the prosperous. Such a misapplication of funds can only be prevented by a clear conception of sound hospital policy and by efficient accounting methods. It is because one or the other of these is lacking that many hospitals today are carrying private patients for less than real cost, properly calculated, and thus are serving, however unconsciously, as instruments of social injustice.

What are the elements of sound financial policy with regard to private patients? Hospitals control facilities for diagnosis and treatment which do not exist elsewhere. It would be inhumane to deny the use of these facilities to any social group or class. That all classes have a right to share in their use, no one will deny; but not all are entitled to share on the same terms. Without discussing underlying principles of justice or of social administration, we may lay down the principle, generally accepted in this country, that the charges for hospital service should be such as to deprive no one of necessary service. It is in accordance with this principle that municipalities appropriate money for the support of hospitals, and it is this belief that induces philanthropic individuals voluntarily to contribute generous sums toward the erection and maintenance of hospitals. Funds so given may properly be used for rich and poor alike; they may with justice be used and consumed by the poor, but if used by the rich, must be used without depletion. In other words, the well-to-do patient must pay his way, while the poorer patient may be permitted to pay in proportion to his ability (which is equivalent to saying that the poorest patients need not pay at all).

Three Items of Payment for Private Patients

Now, if the well-to-do patient is to pay his way, there are three distinct items of payment which must be covered. The first is payment for medical service, and inasmuch as this does not ordinarily enter into the financial calculations of a hospital, nothing more will be said about it here; the hospital should permit reasonable fees to be charged and may leave their collection to the physicians. The second item of payment for which the well-to-do patient is responsible is the cost of maintenance, *i.e.*, the patient's pro rated share of the current expense of conducting the hospital. The third item of payment, an item which it is the purpose of this article to bring forward and to emphasize, is *the private patient's pro rated share of interest on the capital investment of the hospital.* This item is frequently omitted in calculating the cost of caring for private patients.

It may be argued that inasmuch as the hospital does not actually pay interest on capital, no interest charge should be exacted from any patient. The hospital may not actually pay interest, but if it does not collect interest from its private patients, it deprives the poor of benefits to which they are entitled. Donations to the hospital, whether for construction or maintenance, are intended to benefit the poor. The volume of free work that is practicable depends on plant and on income. If a contribution is invested in a ward building or in any of the essential accessories to ward service, the benefaction operates as intended. If sums donated for hospital support are invested in income-bearing securities and the income thus obtained is devoted to the support of free work, again the benefaction operates as intended. But if a donation is used to provide rooms for well-to-do patients, the poor are deprived of all benefit from the transaction, unless the hospital collects from its private patients something over and above the mere cost of current maintenance, or in other words, unless it collects interest on that part of the hospital's capital which is applied to private patients' use. Any interest thus collected must, of course, be utilized for the support of the charitable work of the hospital. In "Hospital Accounting and Statistics," that splendid monument to the life-long public service of W. V. S. Thorne, a method of calculating the relative cost of ward and private patients' service is shown which unfortunately leaves entirely out of account this important element in private patient cost. How should this cost be calculated? How should the hospital accountant estimate the proper interest charge against the occupant of a private room?

If that part of the hospital building which private patients occupy equals, let us say, one-sixth of the cubical contents of the whole hospital plant, it is clear that there should be charged against the whole number of private patients at least one-sixth of a sum representing interest at the current rate on the value of the whole hospital plant. But this is not all. The private pa-

tients' share in the use of other parts of the hospital must be included in the calculation. For purposes of illustration, let us consider the laundry. Will it be sufficient, in the case we are imagining, to charge against private patients one-sixth of the capital invested in the laundry building? Let us see. If each private patient requires three times the quantity of linen used by a ward patient (not an unusual ratio), then the private patients' share of laundry expense (and this applies to current expense as well as to capital expense) should be reckoned as follows:

Ward patients (five-sixths of the whole number of patients)	5 laundry units
Private patients (one-sixth of the whole number of patients; but one private patient equals three ward patients)	3 laundry units
Total	8 laundry units

Now let us take the argument as far as we have gone and use concrete figures. Of eight units of laundry expense, three units, in our calculation, are chargeable against private patients. Assuming that the capital sum invested in the hospital laundry is $40,000, there is chargeable against private patients for laundry service alone an interest item of six per cent on $15,000 (three-eighths of $40,000) or $900.

General House and Property Expense Item

In estimating private patients' share of current expenses one of the items to be distributed is the important item of general house and property expense. To quote "Hospital Accounting and Statistics" once more, "The distribution of general house and property expense among the different branches of service is based upon the relative cubical contents of those parts of the building or buildings occupied by each of the services mentioned" (referring here to ward service, private patients' service, dispensary, and social service). Now private patients do not literally occupy any part of the laundry, but a certain part of the laundry is used for their benefit; for the purpose of distributing current house and property expense, this proportion of the laundry must be assumed to be occupied by private patients, and therefore the cost of its maintenance must be charged against them. And what is true of the laundry is true of other central departments—of the engine room, the kitchen, the storerooms, the nurses' home, the servants' dormitory, the laboratory, the superintendent's office, the housekeeper's apartment, the clinical record room, etc. All of this is recognized by hospital accountants in dealing with private patients' share of current expenses, but there, as a rule, the application of the principle ends. It is highly important, however, that the same principle of distribution be applied in determining the sum properly chargeable against private patients as interest on capital invested in plant.

In order to show clearly the grave importance of the item of interest, let us imagine that we are about to erect a modern building designed exclusively for occupancy by private patients, and supplied, as such buildings usually are, with kitchen, operating rooms, baths and laboratories for general use, reception and sitting rooms for patients, guests and nurses, roof garden, balconies, elevators, utility rooms, ventilated corridors, fire escapes, and a reasonable number of individual private baths and toilets. Such a building will include not less than eight thousand cubic feet of construction per patient. An additional allowance of seven thousand cubic feet, as each private patient's share of power plant, laundry, kitchen, laboratory, administration building, nurses' home, store rooms, dormitories, etc., would probably not be excessive. We have then, a requirement of fifteen thousand cubic feet of construction for each private patient. If, under present conditions, a unit cost of eighty cents per cubic foot for new construction be assumed (one used to say thirty to forty cents for high grade hospital construction in the days before the war, but those happy days are no more!), our capital outlay for each private patient will be $12,000. Six per cent interest on this sum is $720 per annum, or approximately $14 per patient per week. It is evident that unless this sum is paid by each private patient, in addition to the full *cost of maintenance*, the private patient profits at the expense of the poor. In the case of old hospital buildings the proper interest charge would be less, but the principle remains the same. How many hospitals in the United States today are figuring their charges to private patients on a basis which is financially and socially sound?

Just a word about the pro rating of current expenses, because unless this is thoroughly understood the pro rating of capital charges will not be understood either. "Hospital Accounting and Statistics" says that "The percentage charged against ward patients and private room patients is based upon the number of days of treatment furnished in each service, modified by well known facts; for instance, the fact that the private room patient requires more professional care than would be necessary if he were located in a ward; also the important fact that his food and the preparation of it cost very much more than that

of the ward patient." This is a valuable reminder. However, one cannot help wondering whether the "modifying facts" referred to are as well understood as they ought to be.

Below are extracts from the calculation sheets of two representative hospitals, operating similar plants in the same city. In each of these the number of days of private room service is about 10 per cent of the whole number of days of hospital care. These hospitals estimate their private patients' share of important overhead items as follows:

	Hospital "A"	Hospital "B"
Administrative expense	14%	21%
Pharmacy	20%	10%
Food	21%	18%
Kitchen	12%	18%
Laundry	12%	23%
General house and property	13%	19%

The striking discrepancies are not accounted for by equally wide variations in the character of the service of these two institutions. These figures indicate the need of both expert service and the most extraordinary alertness in the making of such calculations. If the calculations are made without the utmost care and skill, injustice will be done and, as a rule, the resulting hardship will fall upon the poor.

TYPHOID IMMUNIZATION OF HOSPITAL NURSES

"Typhoid infection of nurses is not of uncommon occurrence," says Dr. Harold B. Wood, late acting epidemiologist of the New York State Department of Health, writing in *Modern Medicine*. In fact the direct transmission of typhoid fever from patients to nurses is one of the greatest factors in the spread of the disease. Although nurses are carefully instructed in the care of patients having typhoid, sufficient caution is not used to guard the nurses themselves from infection. In 1916 the typhoid case rate for the upstate cities of New York was 39.3 per hundred thousand population, while the case rate for nurses in the hospitals was 390.7—which shows that the disease is ten times more prevalent among nurses than among the general public.

To learn the attitude of hospital superintendents toward obligatory immunization, a questionnaire was recently sent to the superintendents of 254 hospitals in New York State outside of New York City. Replies received from 110 of these hospitals may probably be regarded as representative of average conditions and intentions in the northeastern part of the United States. These hospitals had 2,900 nurses, averaging 26 nurses to a hospital. Typhoid had infected seven nurses and caused one death in 1916; in 1917 there were twenty-four cases with one death among the nurses; and in 1918 there had occurred three cases before December 1. Undoubtedly nearly all these nurses had become infected within the hospitals and probably from the patients whom they were treating.

In regard to the number of nurses immunized during the past two years, the superintendents replied that 1,278, or approximately 4 per cent of the nursing staffs, had been immunized. Forty-seven superintendents admitted that they had not immunized any nurses, in spite of the fact that six months previous to the sending out of the questionnaire the value and need of immunization had been brought to their attention by the state department of health.

Of the superintendents who held opinions, fifty-nine declared in favor of hospitals requiring nurses to become immunized against typhoid. Although vaccination is recognized by the entire medical profession as the most effective method of preventing typhoid fever, twenty-nine superintendents are opposed to making it compulsory for nurses in training, while four desire to make the protection optional with the nurse. Those favoring the measure are the larger hospitals, with average staffs of thirty-one nurses, while those who oppose it are the smaller hospitals, averaging twelve nurses only. It is interesting to note that the hospitals opposing immunization had had relatively just twice as many cases of typhoid among their nurses as had the hospitals favoring the protective vaccination.

Any method or act which conserves human health and efficiency is a practice worthy of universal adoption, and the fact that immunization prevents typhoid and helps to avoid suffering, death, and lost efficiency should make it a universal practice in all training schools. It is not advisable to wait until typhoid has overtaken a community and then look about for means of a cure. Rather is it infinitely wiser to adopt measures of preparedness which will prevent or overcome dangers which may arise. The fact that a community has had no typhoid in the past is no proof that a sudden epidemic may not occur at any time from an imported carrier. This accident happens only too frequently. After the outbreak has occurred it is too late to consider the protection of the hospital staff. After a nurse is regularly assigned to the care of typhoid patients it is equally too late. Probationers substituting for regular typhoid nurses just for an evening have become infected by their lack of care in handling infectious material and the failure to sterilize their hands.

The danger of typhoid infection of nurses exists not alone within the hospital in which they receive their training. Called to attend all kinds of medical cases and live under all kinds of conditions in every locality, they are exposed to the contraction of the disease from their patients, from typhoid carriers, or through the agencies of flies, foods, milk, or water.

Typhoid immunization can most conveniently, economically, and advantageously be done when the nurse begins her term as probationer. The danger of her contracting the disease after leaving the hospital, the precautions which she must necessarily use in handling typhoid patients, and the fact that she may become a potential carrier if she is not extremely careful in her methods, should be explained to her. Immunization will not prevent her contracting the disease, but it will at least prevent her becoming a carrier. It should be required of every employee of every hospital or public institution and should be given when the employee begins service or training.

Blessed is the healthy nature; it is the coherent, sweetly cooperative, not incoherent, self-distracting, self-destructive one.—Carlyle.

There is no heroic poem in the world but is at bottom a biography, the life of a man; also it may be said, there is no life of man, faithfully recorded, but is a heroic poem of its sort, rhymed or unrhymed.—Carlyle.

HEALTH CENTER FOR NORFOLK, VIRGINIA

By MAXWELL HYDE, Architect, New York City

THIS project had its inception in the recognition by the Judge of the Juvenile Court of the need for medical aid in solving the problems of the delinquents and dependents coming under his jurisdiction. Many times the cause of the delinquency is found to have its roots in physical infirmities. It soon became evident, after consultation with the medical authorities of the city, that the scope of the work as originally planned should be broadened and the project became in reality a health center for the entire community —both child and adult.

Health Center Defined

Dr. Livingston Farrand, Chairman of the Executive Committee of the American Red Cross, described a health center as "the physical headquarters for the public health work of a community. As such, it is the practical and concrete expression of the interest of the community in the health of its inhabitants. It constitutes a business-like way of associating health activities, both public and private, under one roof, in daily touch and in complete mutual understanding.

"The health center thus represents the latest step in the evolution of community health work, and answers the demand for efficient conservation of effort in bringing together important but hitherto undefined health campaigns, such as those for the prevention of tuberculosis, venereal diseases, mental diseases, industrial diseases, and above all the vitally necessary modern effort for the conservation of child life. In turn, it offers new possibilities of relating these volunteer activities to the official health work of the city, county, state and federal authorities."

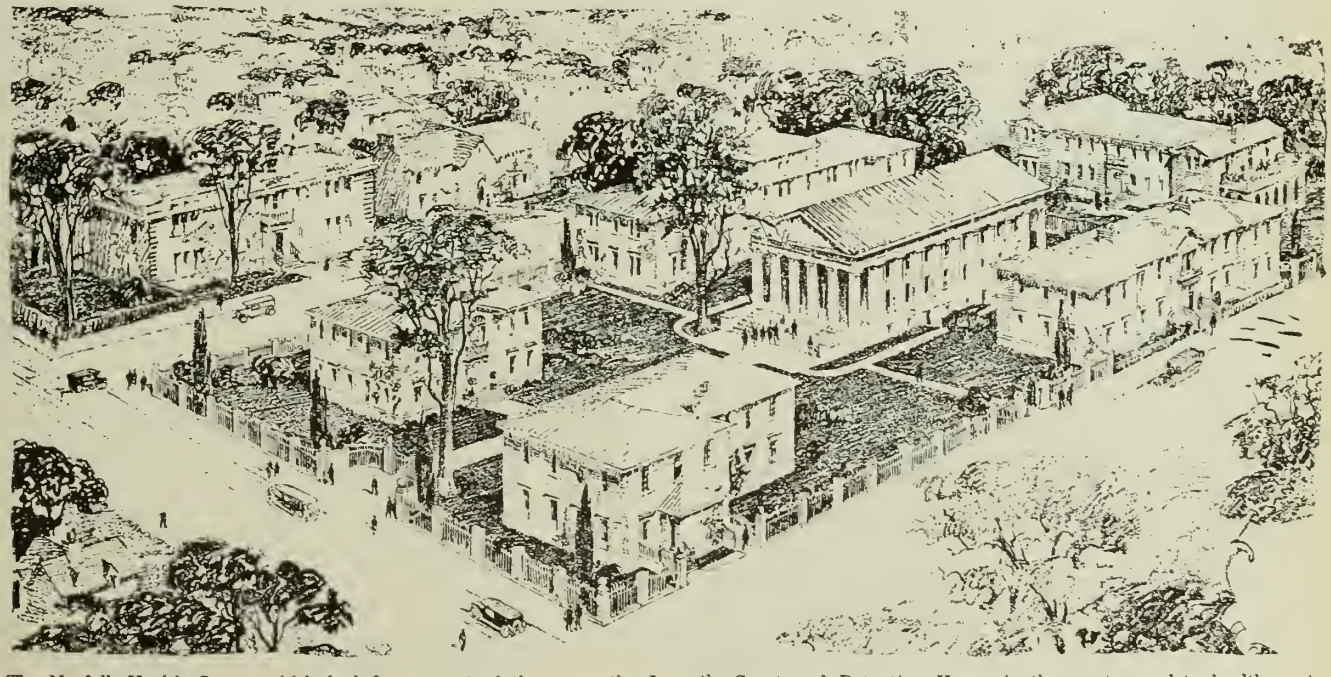
As far as we are aware this is the first complete and comprehensive health center planned for this country, which at the same time is related and has as part of the group, the Juvenile Court and Detention Home.

The relation of public health and hygiene to the general economic circumstances of the community are obviously of the greatest interest and importance. Mr. Charles A. Beard, Director of the Bureau of Municipal Research in a letter in reference to this project, says: "There is absolutely no question but that it will be possible for Norfolk, if those plans are carried out to take the front rank among cities of the country in the public health movement."

Financial Loss Due to Disease

"It is not alone the saving in health and lives which will certainly result, that makes this proposal of interest and importance, but as the result of such saving, the economy in municipal expenditure for health, educational, and allied fields of government work.

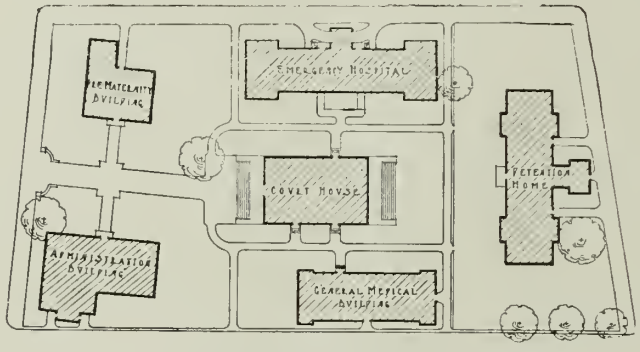
"It may be of interest to you in considering the economic aspects of public health work, to note the recent estimate of the yearly cost to the



The Norfolk Health Center which includes as part of the group the Juvenile Court and Detention Home, is the most complete health center planned for this country.

state of Illinois of sickness and death by communicable diseases. The Illinois State Board of Health estimates the per capita loss as $2,467 and the total loss to all the people of the state, $154,-881,685, a loss which efficient health service would almost completely eliminate.

"The emphasis which your plan places upon child hygiene is certainly warranted also from the standpoint of economy. Former estimates place the cost of elementary school education at about $23.00 per capita in the United States and the annual loss in school attendance in this country at about 39,000,000 days. Fully 25 per cent of this loss is due to sickness and physical defects, to say nothing of the loss because of elimination, non-promotion and attendance. If is safe to say that the program which you have in mind will pay its own way in preventing this great economic loss. This has been proved over and over again."



Block plan of the Norfolk Health Center, showing the relative location of the various hospital and court buildings.

In a report on Five Years of Mouth Hygiene in the Public Schools of Bridgeport, Conn., Dr. Alfred C. Jones states "that covering a period of five years there was a reduction of retardation of pupils of 50 per cent."

Few people realize the cost in money which is only one of the evils of retardation—of the reeducation of retarded children. By actual figures the following statement holds true:

Cost for reeducation in Bridgeport, 1912, equals 42 per cent of entire budget.

Cost of reeducation of Bridgeport, 1918, equals 17 per cent of entire budget, showing the remarkable saving of 35 per cent of entire school budget.

In the Rochester Sickness Survey it was found that there was an average of $2.00 per day wage loss. An annual loss of $1,288,000.00.

Dr. I. R. Wile, Vice President of the Sociological Section of the American Public Health Association, estimates that the total loss to the United States is $500,000,000 in wages alone per year. Add to this another $500,000,000 for attendants, special food, medical service, making a total annually of 1,000 million dollars.

Taking into consideration the admitted necessity of our producing to maximum capacity if the United States is to hold its place in the competitive field of industry in the world market, it should be evident to all producers, both employer and employee, that any project which minimizes the enormous wasteage of labor due to illness must be not only a public but also a specific business economy and a matter of paramount national importance.

The plan comprises the following buildings:

I. The Court House. This is the old academy building, remodeled to meet the needs of the juvenile court and the court of domestic relations.

II. The Detention Home, which is to house the juvenile dependents and delinquents until they shall be permanently committed, or other disposition made of their cases by the court.

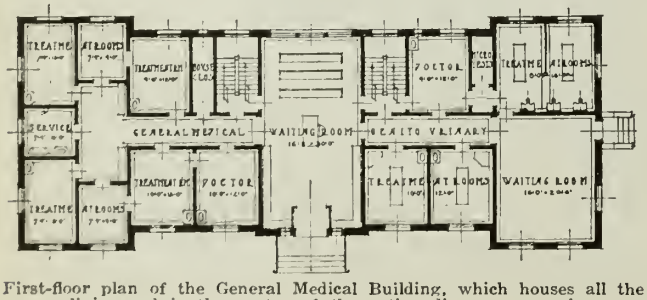
III. The Emergency Hospital which is a police or accident hospital and has little relationship to the health center as such.

IV. The Pre-Maternity Building. This building we prefer to call "The Children's Building" as here is done the pre-natal work and also the work in pediatrics of all children up to those of school age.

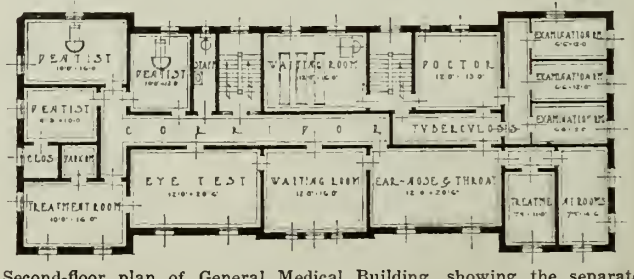
V. The Administration Building which includes the laboratories and the office of the health administrator of the city and his staff, central administrative office and record office of the health center.

VI. The General Medical Building which houses all of the clinics and is the center of the active dispensary work.

We have attempted in designing this project to keep in mind the importance of not changing the character of the design of the Old Academy



First-floor plan of the General Medical Building, which houses all the clinics and is the center of the active dispensary work.



Second-floor plan of General Medical Building, showing the separate stairs, doctors' office, and waiting room for the tuberculosis department.

which has been for so long a landmark of this neighborhood.

We have felt that as far as possible the exterior of the buildings should be as little as possible institutional in character, and have therefore used a colonial domestic type which lends itself well to this purpose.

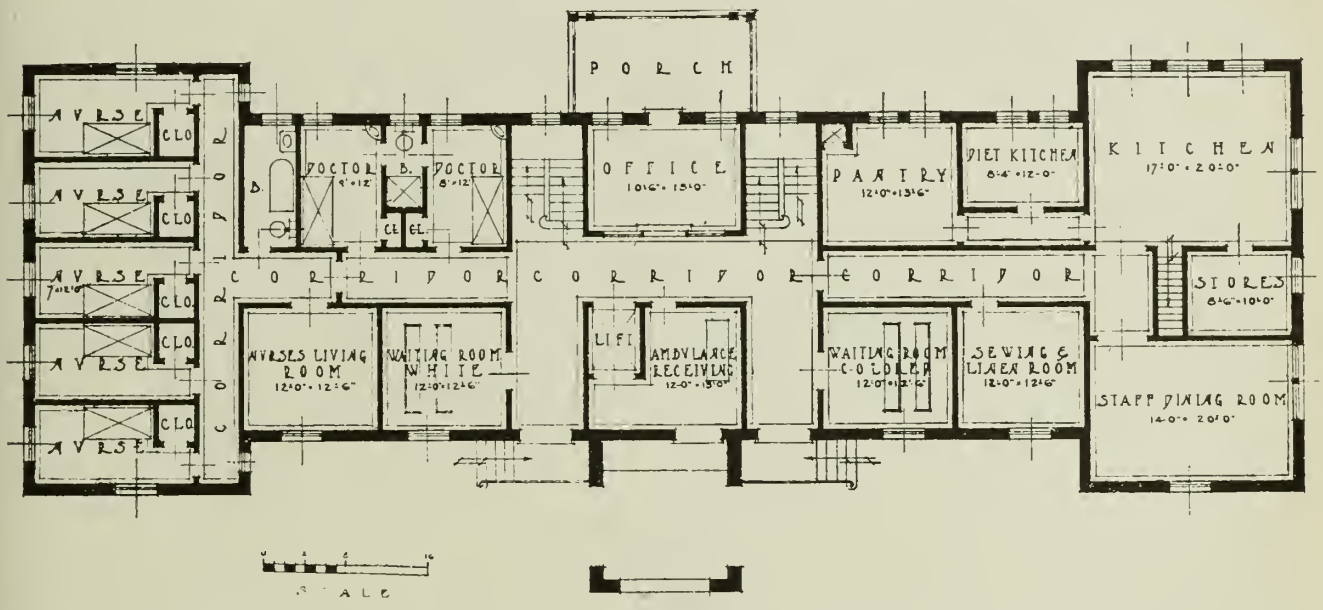
Wear and tear on buildings of this character is very great and they should be constructed of the most substantial materials, even at a somewhat greater initial expense—for this will be more than compensated by economy in upkeep, and repair, and safety in case of fire.

A central heating plant is to be installed in the basement of the detention building, which is to furnish heat for the entire group.

I. Court House. The Court House which is of substantial construction and pleasing design will, when remodeled, have on the first floor the court room, the judge's office, waiting rooms for blacks and whites, and the necessary offices for the probation officers. In the basement will be the detention rooms for those who are awaiting trial. The substitution of a detention room for the usual cell is a plan which has the hearty approval of Dr. Kirschwey, the distinguished authority on penal institutions, and is considered by him a great step forward in court administration.

The rooms for the psychiatrist are attached to the court in the basement. On the second floor is located a meeting room with a seating capacity of about two hundred fifty people, which it is proposed to use for various meetings in connection with public health activities, parents' meetings, and other meetings of general public interest. This room can also be used for instruction purposes when the lecture room in the children's building is not large enough. It will also serve as the exhibition room, which is essential in any public health campaign.

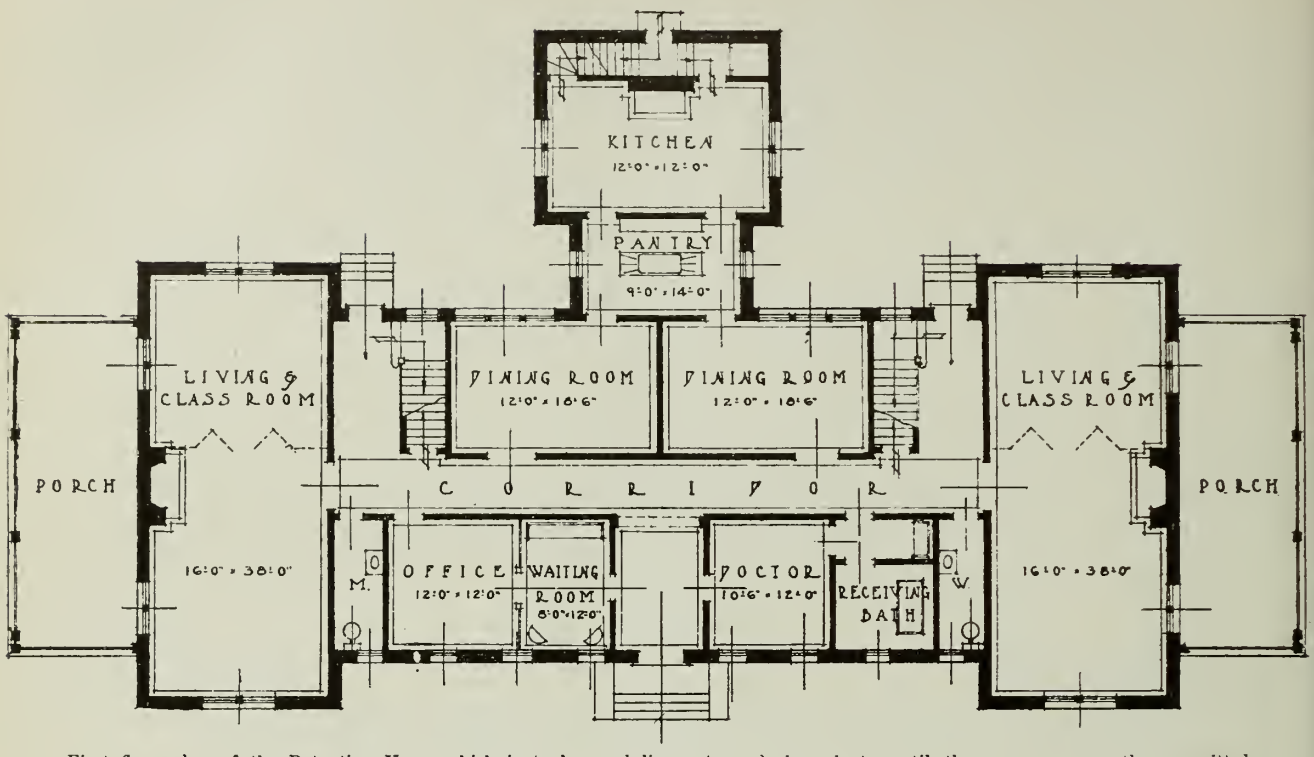
II. Detention Building. In the design of this building we had the close cooperation and advice of Dr. Hastings H. Hart of the Russell Sage Foundation, who has had a vast experience in the building and administration of this type of building. The sketches of the plans were submitted to many institution heads in various parts of the United States and their advice and criticism embodied in the final plans. The difficulty in planning a detention building is to arrange for the large number of segregations which it is necessary to make, without having too large a building. We have found that there should be not less than seven segregate units. The number of children in each division varies considerably at different times. Our plan allows of a very flexible arrangement. If at any time for example, there should be a very large number of young dependent children or older delinquent girls, it is a simple matter by setting certain of the doors to achieve the necessary segregation.



First floor plan of the Emergency Hospital which is a police or accident hospital, and has little relationship to the health center as such.

The basement of the building is to contain the heating plant for all of the other buildings, the necessary store rooms and janitor's closets.

On the first floor is the general office, the waiting room, the examination room where the doctor examines all incoming cases, and the receiving bath and toilet. There are two living rooms and two class rooms so arranged that by means of folding doors two large rooms will result, which can be arranged for technical training or



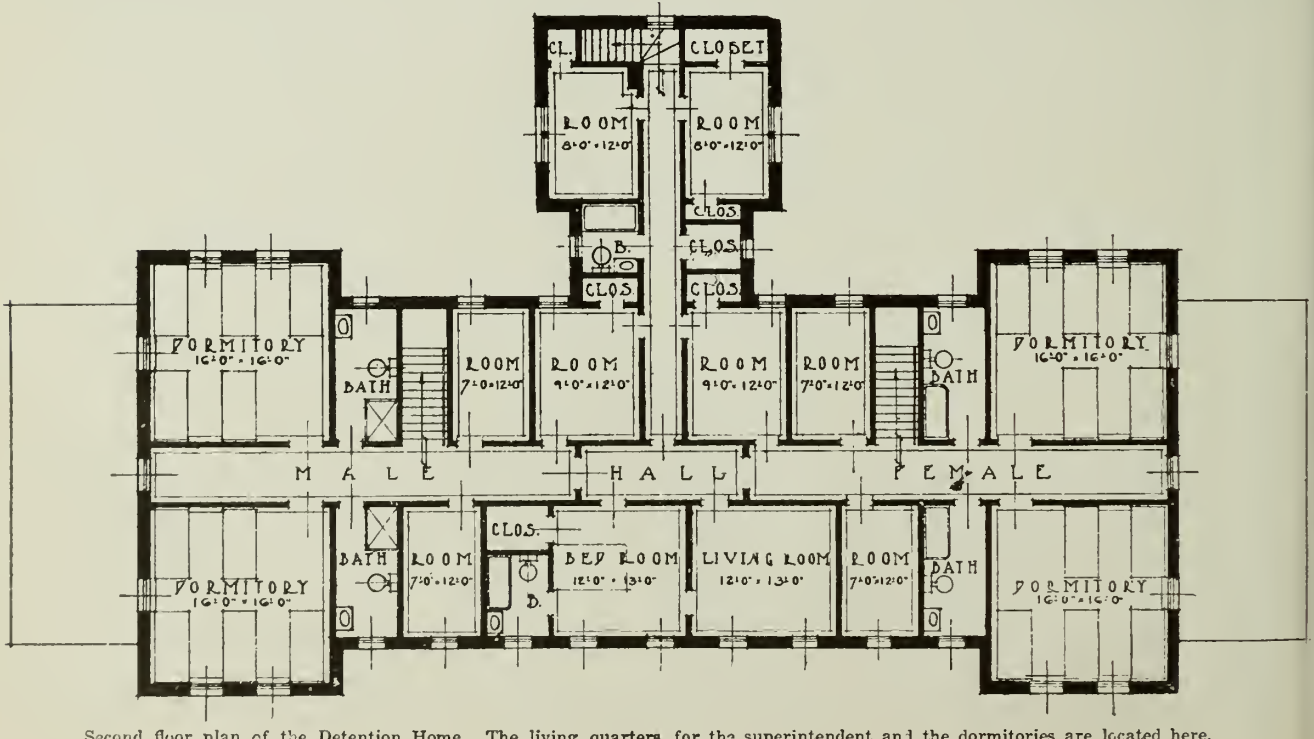
First floor plan of the Detention Home which is to house delinquents and dependents until they are permanently committed.

any other purpose. There are two dining rooms and a large well ventilated kitchen. Two play porches are important features of this plan.

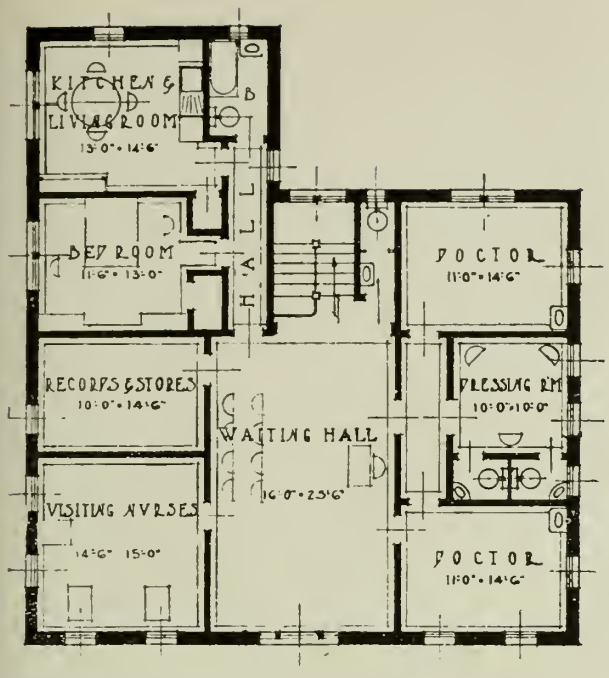
The second floor contains the living quarters for the superintendent and the various bedrooms and dormitories. One of these rooms is to be set apart for those cases needing special study and observation by the psychiatrist.

III. Emergency Hospital. This hospital is to be essentially an emergency or police hospital mainly for accident cases. It is not intended to be an organic part of the health center. A room with four beds for children has been provided to take care of such tonsil cases as may come to the clinic, where it is found necessary to keep the child over night.

The first floor is devoted entirely to receiving room, nurses' quarters, administration purposes,



Second floor plan of the Detention Home. The living quarters for the superintendent and the dormitories are located here.



Second floor plan of the Pre-Maternity Building, showing the three-room model flat consisting of kitchen-living room, bedroom, and bath.

and the kitchen, diet kitchen, etc. It is a constant cause of criticism that the kitchen and its dependencies are not given sufficient importance in hospital design; we have, therefore, located them in an excellent position on the first floor.

The ambulance receiving room is to be so arranged that minor surgical dressings can be done here and the patient immediately discharged, where possible.

In the basement is to be located a space for the ambulance, and room for its attendant, also sterilizing rooms, storage, etc.

The second floor is divided into two sections, one for whites, and one for blacks, and again resubdivided for male and female cases.

The five rooms marked private rooms are not essentially "private" but are to be used for cases needing isolation and more quiet than could be found in the dormitories. On this floor is also the recovery porch with southern exposure.

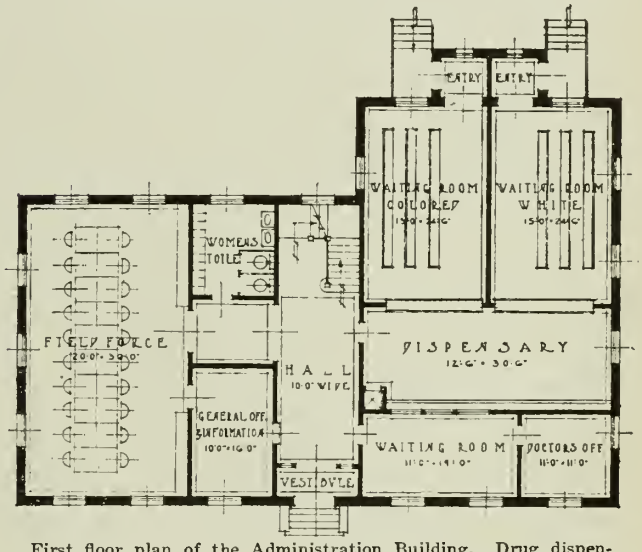
The bed capacity of the hospital is thirty.

On the third floor is a complete operating unit, consisting of operating room, sterilizing room, anaesthetic room, doctor's office and wash-up room. The operating room faces north and the entire unit is well ventilated and isolated.

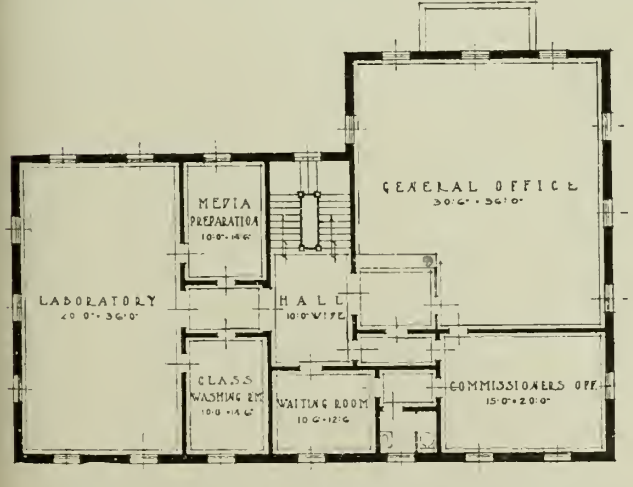
IV. Children's Building or Pre-Maternity Building. This building is to be used both as a maternity center and also for pediatric work—for children up to school age. Recognizing the diffidence which deters so many pregnant women from going to large institutions, we have designed this building to have more the appearance of a large cottage or home than a clinic. The interior is to be brightly decorated, the furniture comfortable and domestic in character, placed as informally as possible, and the entire atmosphere friendly and homelike.

The visitor can enter by the front door, or if she chooses, by the more private entrance at the rear. She enters a large waiting room where she is met by a social worker who takes her social history before ushering her into the doctor's office. Adjoining the waiting room is a nursery where the children who so often accompany the visiting mother, are to stay while she is in the building. Convenient to this is a toilet room.

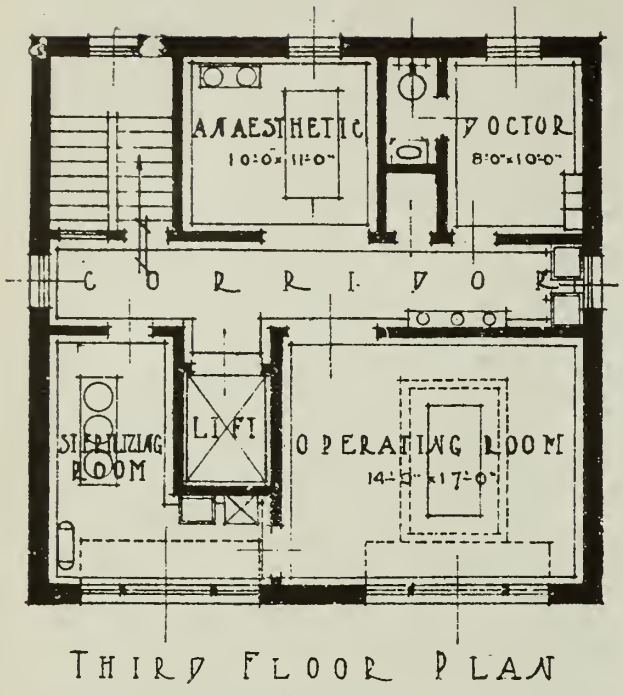
In the lecture room the expectant mothers are given instruction. A large plate glass window permits those in the waiting room to watch what is going on in the lecture room; their interest is stimulated, their curiosity awakened, and they are only too anxious to get the much needed instruction. This lecture room is to be equipped with the necessary apparatus—sinks, table, scales, etc., and around the walls open shelves for



First floor plan of the Administration Building. Drug dispensary, waiting rooms, and report room for the city field force are here.



Second-floor plan of the Administration Building, showing the executive offices and the general office for the city health department.



Third floor plan of the Emergency Hospital, where a complete operating unit of four rooms is to be located.

the display of babies' garments and fabrics, so arranged that the women can have easy access to them. It has been found that interest in the display of inexpensive dainty infants' clothes will bring the mother back again and again.

After the woman's social history has been taken, she is conducted to the dressing room with its necessary toilets, where she is prepared for examination in either of the two doctors' offices. These two offices are so arranged that not only can they be used as examining offices, but also for treatment rooms.

On the second floor is another dressing room and two more doctors' rooms. A room is provided where the visiting nurses can prepare their reports and keep in touch with their cases. Here also is a model flat, consisting of combination kitchen and living room, bedroom and bath. This is to be furnished with carefully studied and well selected furniture and equipment, in order to teach the women that it is not necessary to spend large amounts of money, if knowledge and care are used in the buying. Each article is to be carefully marked with its purchase price. The bedroom also can serve the double purpose of rest or recovery room, as should be required.

It is also proposed to use the lecture room on the first floor as an instruction room for midwives, an essential part of any constructive maternity work.

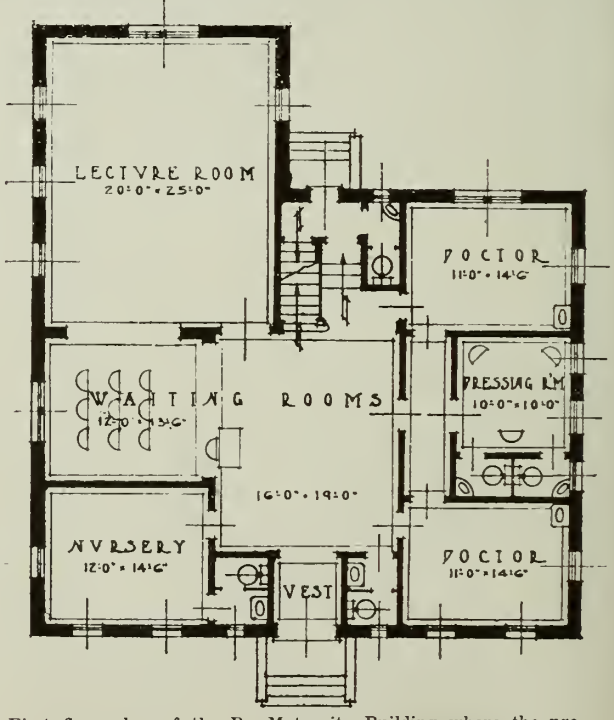
V. Administration Building. The Administration Building contains on the first floor the drug dispensary with waiting rooms for whites and blacks. It has a separate entrance so that those using it have no connection with the administration part of the building. A dumbwaiter leads to a room in the basement where material can be kept in bulk. A space is provided for the doctor who does the school vaccinations.

Here also is the general information office and general record room and the large room where the field force of the city health department prepare the reports. On the walls of this room are cabinets for the health records and reports, and for the keeping of the necessary literature distributed by the city health department.

On the second floor are the executive offices of the city health officer, and adjoining it the general office for the health department of the city. Here also is the laboratory for the city and the health center, with the necessary adjacent preparation rooms and glass washing rooms. On the roof are the animal rooms used in connection with the experimental work done in the laboratories.

VI. General Medical Building. In this building are located the various departments which comprise the general medical and examination work and the dispensary work of the health center, exclusive of the departments for the work of children of pre-school age and for pre-natal work.

The basement contains a complete x-ray department, where it is proposed to do not only the x-ray work for the health center but also for the private physicians of the city. The experience of Bridgeport, Conn., is that this work not only carries the expense of the x-ray department but also shows considerable profit. The balance of



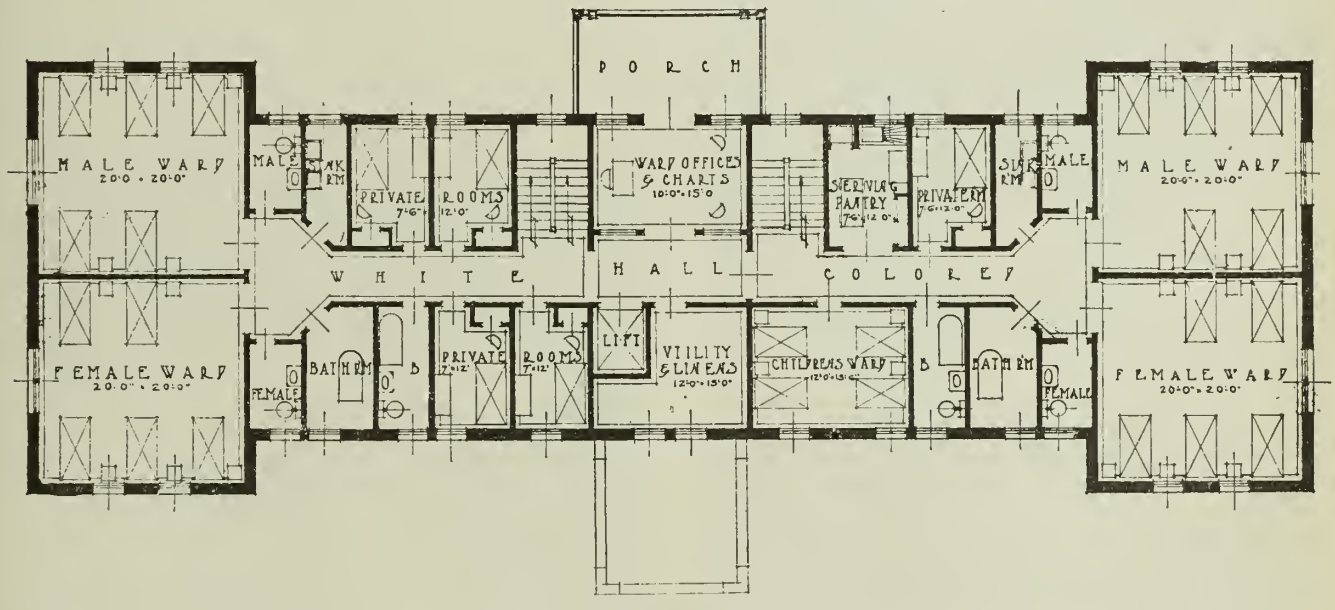
First floor plan of the Pre-Maternity Building where the prenatal work and the work in pediatrics of the young children is done.

the basement is devoted to the orthopedic department, comprising mirror and gymnastic rooms. general orthopedic apparatus room, foot baking room, dressing room and doctors' office. The general toilets for men and women will also be on this floor, as well as locker rooms for the attending physicians and nurses.

In order to avoid too large a plant this building has been so designed that the same spaces can be used for various purposes at different times. It was also decided after careful consideration that in addition to the general waiting room on the first floor it was advisable to have secondary waiting rooms in connection with each separate department. The visiting patient enters a large well lighted and ventilated waiting room. In the center, controlling the entire room, is the desk where the first record is taken and the patient given necessary directions. To the right is the genito-urinary department—so arranged with a separate entrance that it can be used at night as a male clinic when the rest of the building is not in use. This same space is also to be used as the gynecological department. It consists of a waiting room, doctor's examining room, four treatment rooms, so arranged that seven patients can be treated at once. In addition there is a small microscopic room so that tests can be immediately made and the results given to the patient without delay. The stairs leading to the tuberculosis department are so placed that if there is need for a heavy service the tuberculosis rooms can be used in connection with the genito-urinary section.

X-ray work for this department is to be done in the basement. One of these rooms can be used as a cystoscopic room. To the left is the general medical department consisting of doctor's office, service room with sink, sterilizer, instrument cases, cupboards, etc., six examination or treatment rooms, as may be required. The character of use and arrangement of time of use of this department will have to be decided by the medical authorities administering the health center. The arrangement of these rooms by means of intercommunicating doors allows of much flexibility and adjustment. They are to be used for all general medical examination and treatment.

There are two stairs leading to the second floor, one for general use and one to serve the tuberculosis department. For this division we have a separate waiting room, doctor's office and three examination rooms. The other stairs serve the dental department as well as the divisions for eye, ear, nose and throat. Three dental rooms are provided, one of these rooms being a sound-proof extraction room. There is an eye testing room sufficiently large to test a number of cases at once a treatment room for eye cases, a doctor's office and small operating room, and a general ear, nose and throat treatment room which is to be partitioned off so that a number of cases can be given simultaneous treatment.



Second floor plan of the Emergency Hospital. This floor is divided into two sections, one for blacks and one for whites, and resubdivided for males and females.

SELL YOUR HYPO WASTE

The sale of hypo "waste," discarded plates, old x-ray tubes, and various pieces of apparatus, by the London Hospital, London, England, has netted the institution over $400 in the last six years. The hypo "waste" is collected in a cask and sold to a refining company. The radiographs, amounting to many thousands per annum, are classified by the radiologist, and those discarded are put aside for at least six months, and then sold at the market price of glass.

CREATING A MINIATURE WORLD

By MARY HAMMOND BARKER, Supervisor of Kindergartens, Worcester, Mass.

IF I were cast away on a desert island with a cargo of children to be educated, I think (at this moment) that I would almost rather have materials to work with than books. Children seem to get so much more out of an hour's work with materials on which they may "work their will" than an hour's work with a reading book.

Fig. 1. The original ice cream box and the ice cream box toys made by the student nurse. A trunk, a bus, a coaster, an ice wagon, altar, ambulance, chest of drawers, clock, bureau, Victrola, bench, wheelbarrow, trolley car, and a baby's sled are among the interesting products submitted.

Children who live in a world of reading matter surrounded by adults who read aloud to them, tell stories, explain the new and the unknown as it appears from day to day in the child's life—these children seldom seem to have a definite time when they begin the art of reading. As I have watched such children, they go over into reading when it becomes a need in their constructive work, or the vital interest of the day or week. With almost all intelligent children, reading is a means to an end. One child I know mastered reading and writing in order to carry on his play with an express wagon he had received for a Christmas gift. The child made up dozens of packages with which to fill his delivery wagon, only to find that his game was incomplete. Express packages without an address were like a clock without a face. For several days he tagged his busy mother about begging for names of people to put onto his wobbly express packages. In desperation his mother said, "John Henry, go get the telephone book. It's full of names of people."

With the uncanny persistence that some children have, John Henry made of that telephone book a means of education. In fact, it turned out to be in his case a reader, a spelling book, an arithmetic, and a geography. His mother told me with a deep sigh that henceforth she should look upon the telephone book as a life-saver for mothers of five-year-old boys.

At the close of a lesson recently, each nurse in the junior class was given a new one-quart paper ice cream box. They were requested to bring this into class next day transformed into a toy. When

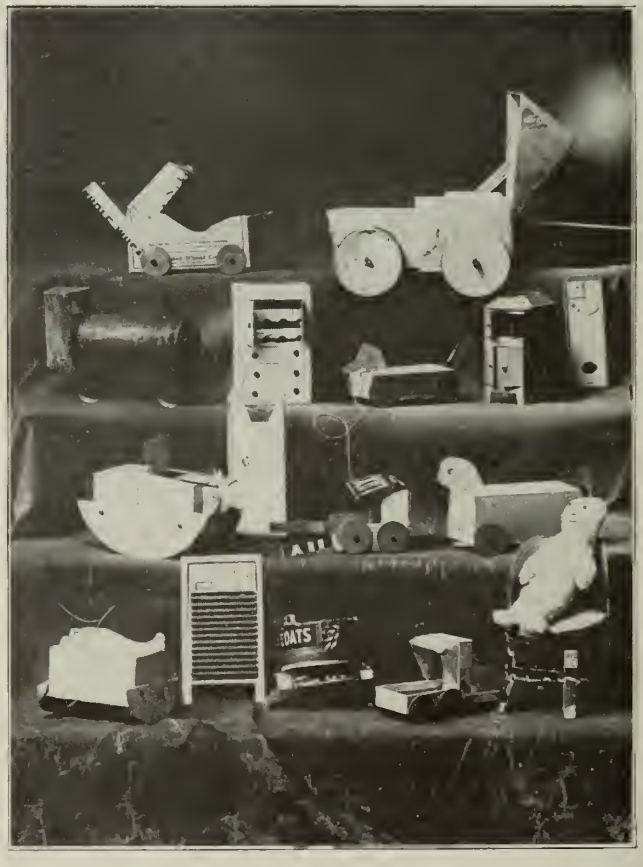


Fig. 2. A varied array of toys made from breakfast food containers.

the box is folded it is brick shaped (see picture No. 1, pasteboard box).

The student nurses looked a little blank. In answer to their question, "What can anybody make out of a plain box?" there came, not an

Fig 3. "Portrait of a stove" made from a paper egg container painted black.

answer of definite toys that could be made, but a request to look at the box and discover what objects moved about the city whose basic form was rectangular. A moment and the replies came flying:

"Milk wagons. Trolley cars Trucks. Laundry wagons. Ambulances." Then, "Passenger, freight and coal cars."

The frown left their brows and they left the room visualizing their tomorrow's offering.

I find that the method of giving a class a common material with which to work out an individual problem is a very good starter in construction work. They gain a valuable lesson from seeing how diversified human ideas are, even when expressed through so trivial a thing as toys made from a three-cent box. Please look again at picture No. 1. The original one-quart ice cream box at the top is uninteresting enough. We know that a hundred or more are cut out at a single stroke of a power machine. Then look at the row below. Ideas have begun to play upon that utilitarian ice cream box. A trunk strapped and tagged. A bus with people looking out the windows, and the third a toy that is uncertain whether to proclaim itself an Irish Mail or a coaster. On the next shelf—certainly human thought is varied—an ice wagon and a high altar stand together with a benevolent Red Cross ambulance. Below is a chest of drawers, grandfather's clock, a bureau, Victrola and a settee. These are followed by a weary wheelbarrow, a trolley car and baby's sled.

Evidently creative ability arose and flamed, for the nurses went out that night and bought extra boxes. When the class came together, the number of toys brought in was double and triple the class enrollment. A census was taken. Trolley cars led in numbers. Next came trucks for ice, coal, moving vans, circus wagons, laundry, and other delivery wagons. Milk bottle tops for wheels, with collar button hubs, served every purpose on these vehicles. Doll's furniture came third. Victrolas bloomed with persistence. Dolls' beds and cradles, baby carriages, cupboards, wardrobes, and trunks, and toys that could be dragged.

Referring to my earlier thought of being cast away on a desert island with a lot of children, I should hope and pray that all kinds of containers and boxes would be thrown on the beach with every tide.

In picture No. 2 you will easily see it would be impossible to keep school without a good supply of containers in which well known breakfast cereals arrive at our kitchen doors. The baby carriage at the top is constructed from a shredded wheat box. Its wheels of course are milk bottle tops. The other baby carriage at the right is made from a handsome box that somebody's Christmas stationery came in, with thick paper jelly glass covers for wheels. Below is a steam roller bearing down upon Old Mother Hubbard's cupboard. This cupboard is made from a candy box. The knobs are the ever useful collar buttons that we purchase in great gross packages for the use of children in a kindergarten and first grade. Among the other toys are a sled, made from a box cover, and a little wagon made out of a Lux box, two toys that can be dragged—ducks, I think they are. The chairs in which the stiff doll attempts to sit is made from a Quaker Oats box; also the wash tub and bench. The washboard beside it seems out of scale, but that never troubles little children.

Please look at picture No. 3. It is a portrait of a kitchen stove. Haven't you usually thrown away the paper box your eggs come in? A child can see in such a box a perfectly good stove with real holes for pots and kettles. Painting it black makes it more lifelike, and it can be played with for days.

Fig. 4. A miniature village street. All of the houses except the white one in the center are made from shoe boxes.

After the baby days, when the goal in construction work is a toy, and the spur for accomplishment the desire to play with the object, comes a wider angle of vision. The older child still wishes to construct and create, but his interests have broadened. Civic life, organization, trades, and occupations interest him. Village and town building becomes an absorbing topic. The question of who owns the land comes up: possession; what are deeds? why should they be registered? what is a court house? why is land taxed? who knows

how to measure land? The business of buying and selling land; parcels of land or lots; restrictions or rights of other citizens; upkeep of streets and sidewalks; lighting; cleaning of streets; sewerage; water; gas; electricity. Once the children are launched on these civic topics, a thousand subtopics creep in, such as building materials; what

Fig. 5. The little old red school house made from a large red pasteboard box.

are doors and windows for? why should the roof slope? why do houses need a cellar?

In picture No. 4 you see a portion of a village street. You can almost guess the kind of house the child lives in who contributed to this village street. The three-decker or three-flat house at the right is flanked by a stout baby carriage. This seems most appropriate, for baby carriages seem naturally to prefer many-flat houses to any other kind of house. Of these five houses, all but the white one in the center are made from shoe boxes. Of all the boxes that were ever made, a teacher loves the shoe box best. It lends itself to every mood of childhood. Corrugated board is a very valuable material in construction work. It makes beautiful roofs and takes on color well. In town building, let each child contribute the building he thinks the town needs and he can make best. A postoffice, town hall, cottage, school house, church, or store.

That Little Old Red School House

I sometimes wish that little old school house of our forefathers had been painted another color. It has been an educational red rag to me all my life. Some worshipper of things-as-they-used-to-be is always jumping up in a school board meeting and saying:

"Well! Seventy-five years ago most men got their education in a little old red school house, and they were men who became presidents of railroads, statesmen, captains of finance, and they never had any kindergarten, nor manual training, nor swimming pools, nor fool cafeterias. They carried a tin dinner pail to school, and got their manual training shingling the barn, or milking cows before daylight."

"Yes; but where one man came through and became a leading citizen, there are ninety-nine nobodies that have sunk into oblivion."

Picture No. 5 did not begin its life as a school house. It was a large, red pasteboard box in which gentlemen's shirts are packed. First a little boy made a church out of it. Later in the school year it was a garage. The box finished its year of school life in a second grade room as a little red school house, on account of its color, and supplied the need of a school for a civic center that had arisen on the school room floor.

Inside and Outside

Picture No. 6 is my old friend the shoe box presented as a problem to a group of grade teachers. They were asked to present a house or home reduced to its simplest elements. This one-roomed house seemed the best answer to the problem set. The essentials are there. The picture

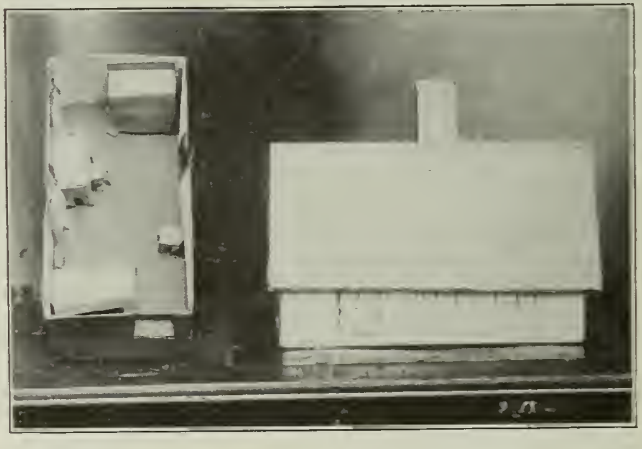


Fig. 6. A house, made from a shoe box, and the inside of one room. Here is a door, two windows with curtains, wall paper for a carpet, and bedroom furniture made of paper.

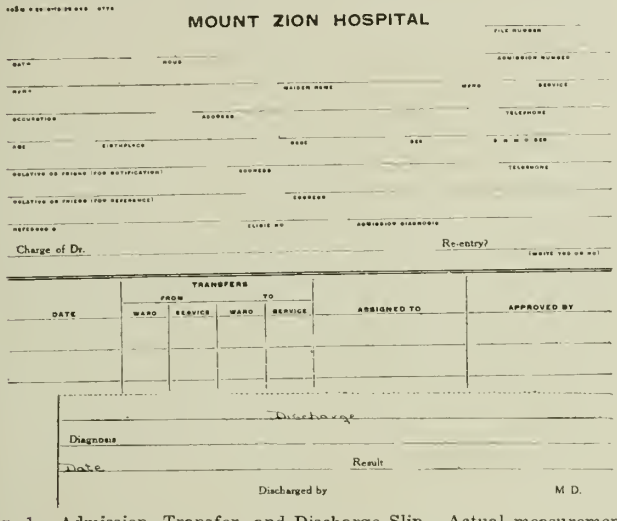
at the left is in answer to the problem of showing one room. Here is a door, two windows with curtains, wall paper for a carpet, and bedroom furniture made of paper. In this construction work nothing has been used that is of any value. They are, however, all materials that satisfy the child's desire to reproduce his environment—the desire to re-create, to change, and manipulate. They help to satisfy that innate desire to express his ideas in concrete form. Teachers and mothers should collect these odd waste materials and with them, pencils, paste, scissors, etc. Then let the children have unrestricted access to them, and don't be afraid of the necessary clutter that is the result of little children's busy play.

If you are acquainted with Happiness—introduce him to your neighbor.—Phillips Brooks.

THE STANDARDIZATION OF HOSPITAL RECORDS

By GENEVIEVE CLARK, San Francisco, Cal., Consultant in Case Records, San Francisco Hospital, Mount Zion Hospital, St. Mary's Hospital and Alameda County Hospital

NEVER before in the history of medicine have hospital case records played so prominent a part as at the present time—both from the standpoint of the patient, and because of their great


MOUNT ZION HOSPITAL

Charge of Dr.

Re-entry?

TRANSFERS

DATE	FROM WARD	FROM SERVICE	TO WARD	TO SERVICE	ASSIGNED TO	APPROVED BY

Discharge

Diagnosis

Date

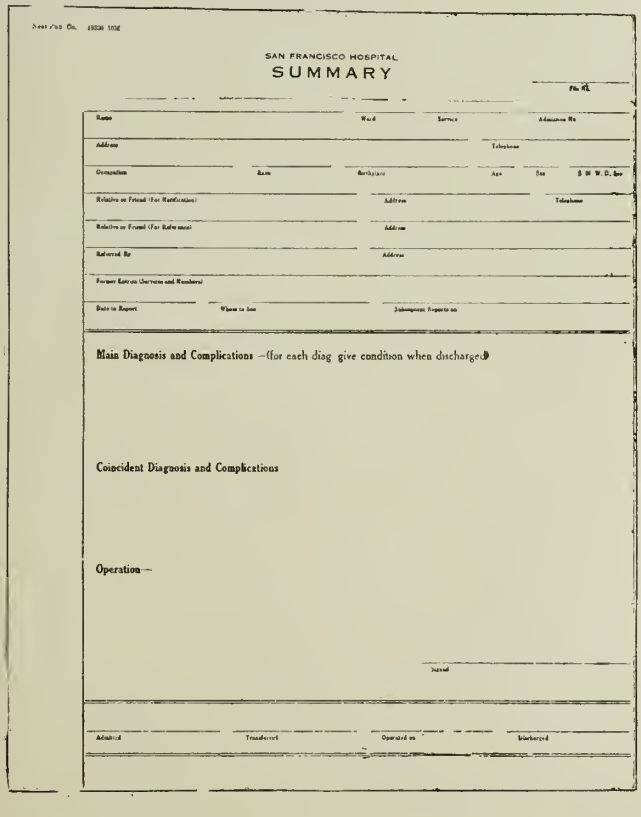
Result

Discharged by

M. D.

Fig. 1. Admission, Transfer, and Discharge Slip. Actual measurement of original, 8½x7 inches.

value in research work. The necessity of keeping a complete, permanent record, properly indexed, of certain data in every case, is being realized


SAN FRANCISCO HOSPITAL

SUMMARY

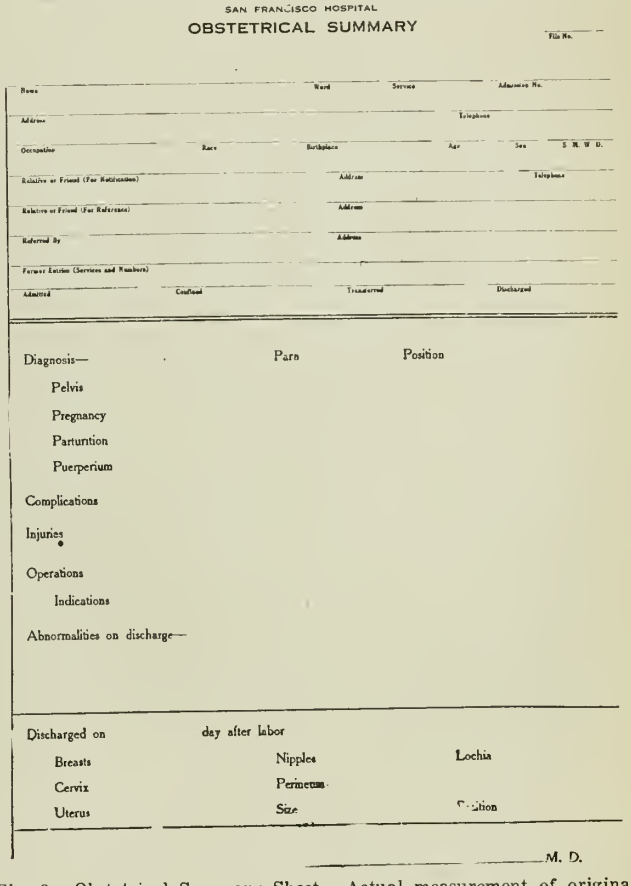
Main Diagnosis and Complications —(for each diag give condition when discharged)

Coincident Diagnosis and Complications

Operation—

Fig. 2. General Summary Sheet. Actual measurement of original, 8½x11 inches.

universally. Since this data may be recorded in various ways, it is important to devise a system best suited to the hospital in general, with a view to standardizing the records as far as possible. Each hospital has its own peculiar problems, but certain routine work is essentially the same and the right system could be adapted to meet every need. A physician's time is too limited to permit of perusing sheet after sheet of a history. Therefore much attention must be given to the arrangement of the data so that the main


SAN FRANCISCO HOSPITAL

OBSTETRICAL SUMMARY

Diagnosis— Para Position

Pelvis

Pregnancy

Parturition

Puerperium

Complications

Injuries

Operations

Indications

Abnormalities on discharge—

Discharged on day after labor

Breasts Nipples Lochia

Cervix Perineum

Uterus Size Position

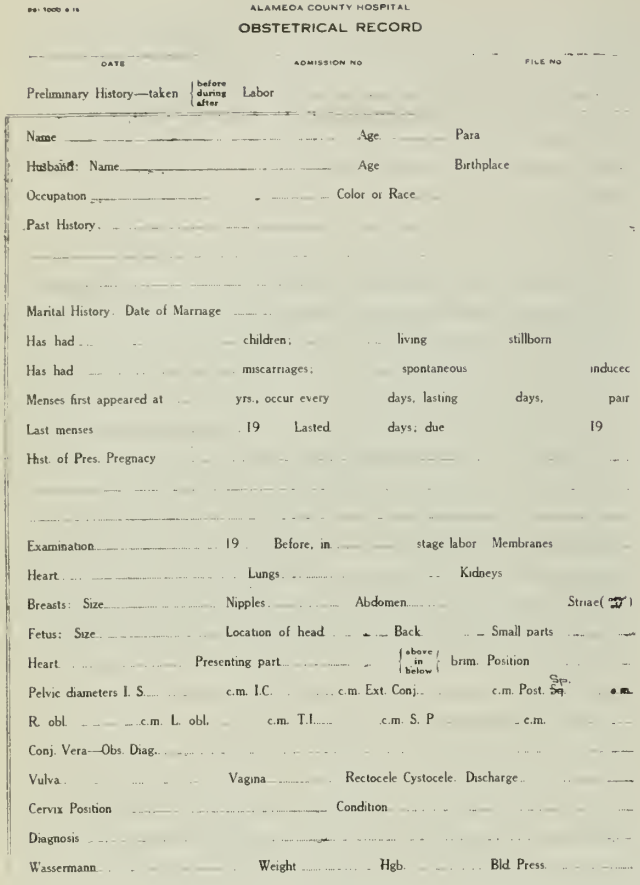
M. D.

Fig. 3. Obstetrical Summary Sheet. Actual measurement of original, 8½x11 inches.

factors of the case may be summarized. This article, with illustrated record forms, outlines briefly the important features of a system used successfully in several San Francisco hospitals.

Number System

Each patient has both an admission and a discharge number, assigned from registers in chronological order. The admission number merely represents the patients admitted to the hospital daily, and is used for statistical purposes only. The discharge number is the file number and also


ALAMEDA COUNTY HOSPITAL
OBSTETRICAL RECORD

DATE ADMISSION NO FILE NO

Preliminary History—taken before during after Labor

Name Age Para

Husband: Name Age Birthplace

Occupation Color or Race

Past History

Marital History Date of Marriage

Has had children; living stillborn

Has had miscarriages; spontaneous induced

Menses first appeared at yrs., occur every days, lasting days, pain

Last menses 19 Lasted days; due 19

Hist. of Pres. Pregnacy

Examination 19 Before, in stage labor Membranes

Heart Lungs Kidneys

Breasts: Size Nipples Abdomen Striae

Fetus: Size Location of head Back Small parts

Heart Presenting part above in below brim. Position

Pelvic diameters I. S. c.m. I.C. c.m. Ext. Conj. c.m. Post. Sag.

R. obl. c.m. L. obl. c.m. T.I. c.m. S. P c.m.

Conj. Vera—Obs. Diag.

Vulva Vagina Rectocele Cystocele Discharge

Cervix Position Condition

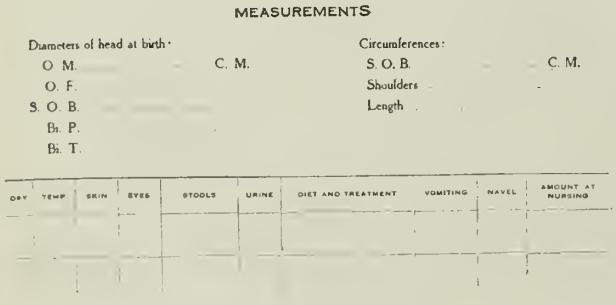
Diagnosis

Wassermann Weight Hgb. Bld. Press.

Fig. 4. Record of New Born. Actual measurement of original, 8½x11 inches.

represents the daily discharges. The discharge number is a great advantage in binding, making it possible for all records to be bound up to date. For instance, on the first day of every year the records of all cases discharged during the previous year can be found without delay.

When a patient is admitted to the hospital, a temporary slip (Fig. 1), containing all necessary data, is filled out in the office and sent to the ward with the patient. This slip is used for three


MEASUREMENTS

Diameters of head at birth:

O. M. C. M.

O. F.

S. O. B.

Bi. P.

Bi. T.

Circumferences:

S. O. B. C. M.

Shoulders

Length

DAY | TEMP | SKIN | EYES | STOOLS | URINE | DIET AND TREATMENT | VOMITING | NAVEL | AMOUNT AT NURSING

Fig. 5. Reverse side of Record of New Born sheet shown in Fig. 4.

purposes—namely, admission, transfer, and discharge, and is finally destroyed in the record room (which will be explained later). The admission book is filled out before the patient is sent to the ward so that the serial number may be added to the slip immediately. A blank summary sheet (Fig. 2) is also sent up with the patient to be printed by the nurse on admission to the ward. In obstetrical cases special summaries are used for mother and baby (Figs. 3 and 4). The office is notified immediately of births and the infant is admitted as a regular patient.

Transfers

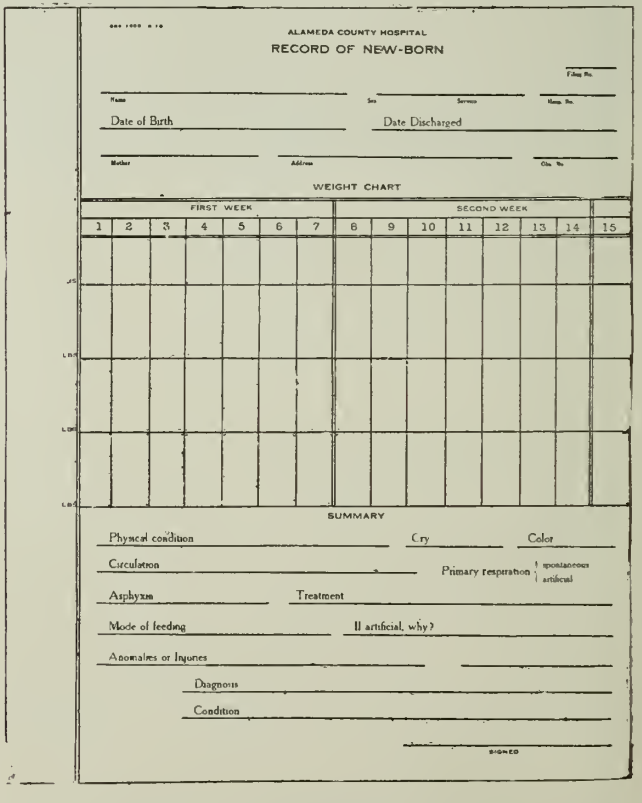
In case of transfer, the slip (Fig. 1) is brought to the main office by the nurse for the signature of the clerk on duty, after which, both slip and record are transferred with the patient.

Discharges

At discharge the slip (Fig. 1) must be signed by the doctor before the patient is allowed to leave the ward. At the close of the day the slips of all patients discharged during the day are brought to the office by the nurse in charge of each ward. In case of death the slip is brought to the office immediately. The discharge book is compiled from these slips and the number written upon them in the proper place; then they are held in the office until the following morning when they are turned into the record room.

Histories

Interns are required to write a complete standard history of every case, including family history, past history, present illness, physical examination, and bedside notes (which are kept regularly until time of discharge). With the excep-


ALAMEDA COUNTY HOSPITAL
RECORD OF NEW-BORN

Name Sex Service Hosp. No.

Date of Birth Date Discharged

Mother Address Clin. No.

WEIGHT CHART

FIRST WEEK SECOND WEEK

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

SUMMARY

Physical condition Cry Color

Circulation Primary respiration spontaneous artificial

Asphyxia Treatment

Mode of feeding If artificial, why?

Anomalies or Injuries

Diagnosis

Condition

SIGNED

Fig. 6. Obstetrical History. Actual measurement of original, 8½x11 inches.

LABOR RECORD

Labor began ____ A. P. M. ____ 19____

Presenting part ____ Above, in, below, brim

Position ____

FIRST STAGE

Contractions ____

Membranes ____

Medication ____

SECOND STAGE

Contractions ____

Child delivered, spontaneously, artificially ____ A. P. M ____ 19____

Medication ____

THIRD STAGE

Medication ____

Blood loss ____ {ante / intra / post} Partum about ____ cc.

Source ____

Treatment ____

General Condition ____ Uterus ____

Placenta. Shape ____ Condition ____

Membranes ____

Cord ____ about neck ____ times. Treatment ____

Perineum {incision / tear of} ____ Degree ____ sulcus

Repaired with ____ catgut and ____ s.w.g. sutures

Operations ____

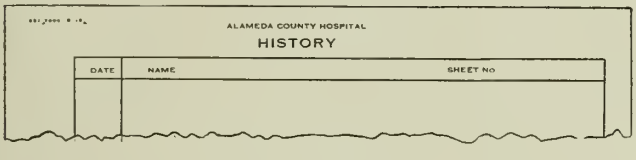
Indications ____

Began ____ Ended ____

Present ____

Fig. 7. Reverse side of Obstetrical History sheet shown in Fig. 6.

tion of obstetrical histories (Fig. 6), blank history sheets are used (Fig. 8). Operation, treatment and laboratory sheets are also used (Figs. 9, 11, 12, respectively). All duplicate departmental reports pertaining to cases such as x-ray, pathological, and autopsy are sent to the record room and filed with the history. Records


ALAMEDA COUNTY HOSPITAL

HISTORY

DATE | NAME | SHEET NO

Fig. 8. History Sheet. Actual measurement of original, 8½x11 inches.

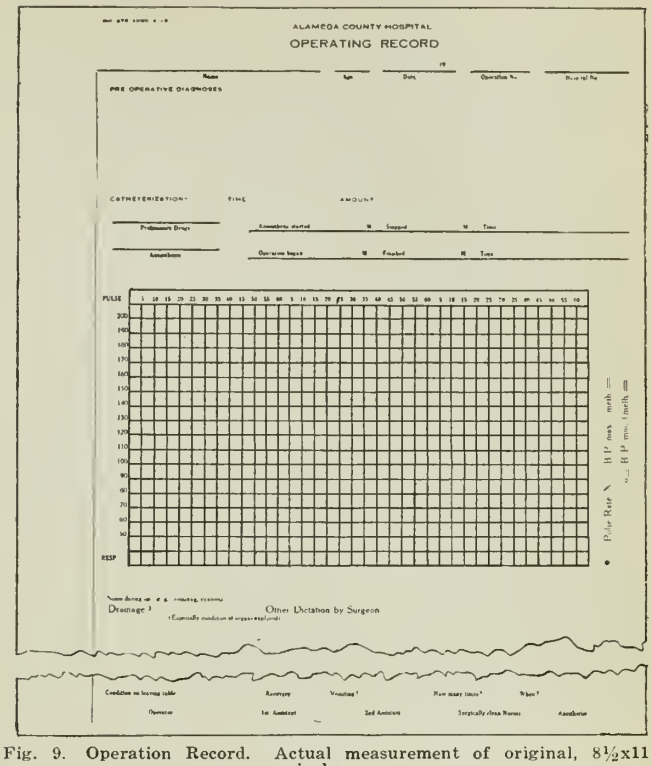
of all cases discharged the previous day are turned into the record room every morning. In this way the intern is given sufficient time to sign the summary sheets and to complete the discharge notes.

Record Room

It is the daily duty of the record clerk before she goes off duty to see that the records of all patients discharged from the hospital during the previous day are turned in on time, complete, correct, and properly indexed and filed. An exact routine for this work should be strictly followed.

Inspection

Each morning the discharge slips are received from the office and checked up with the histories


ALAMEDA COUNTY HOSPITAL

OPERATING RECORD

PRE OPERATIVE DIAGNOSES

CATHETERIZATION — TIME — AMOUNT

PULSE

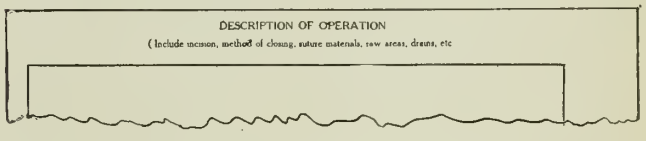
RESP

Drainage ?

Other Dictation by Surgeon

Fig. 9. Operation Record. Actual measurement of original, 8½x11 inches.

brought in from the wards. Missing histories are sent for immediately. The records are then arranged numerically by discharge number. Next the summaries are corrected by the slips


DESCRIPTION OF OPERATION

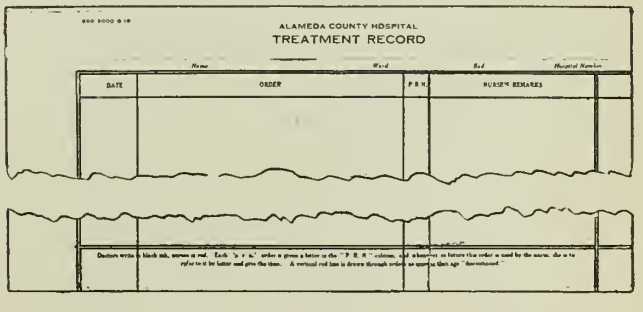
(Include incision, method of closing, suture materials, raw areas, drains, etc

Fig. 10. Reverse side of Operation Record sheet shown in Fig. 9.

with special reference to dates. At this time the slips, having fulfilled their purpose, are destroyed. Then the histories are carefully inspected for mistakes or omissions. In case of anything that cannot be rectified in the record room, the intern is notified.

Indexing

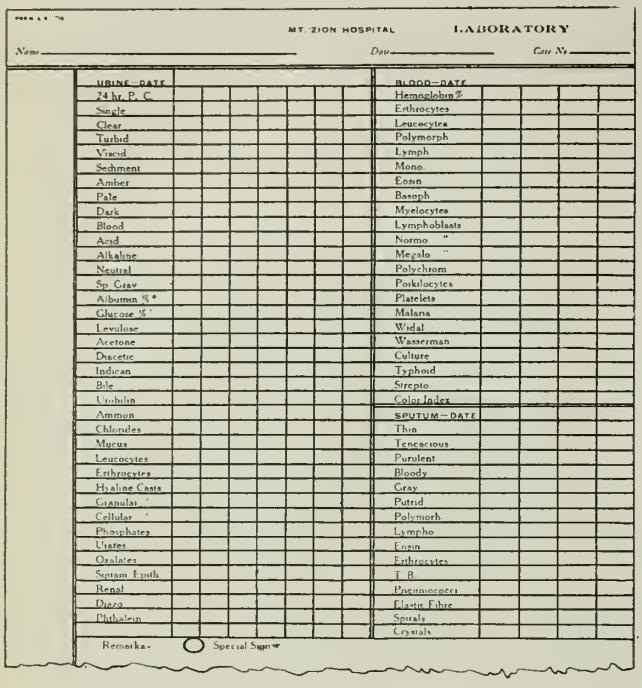
Proper indexing is the next important step, without which, much valuable material is rendered useless. Each history is catalogued by Name, Diagnosis and Complication, Operation,


ALAMEDA COUNTY HOSPITAL

TREATMENT RECORD

DATE | ORDER | P R N | NURSES' REMARKS

Fig. 11. Treatment Record. Actual measurement of original, 8½x11 inches.


MT. ZION HOSPITAL LABORATORY

Name Date Case No.

URINE—DATE: 24 hr. P. C., Single, Clear, Turbid, Viscid, Sediment, Amber, Pale, Dark, Blood, Acid, Alkaline, Neutral, Sp. Grav., Albumin %, Glucose %, Levulose, Acetone, Diacetic, Indican, Bile, Urobilin, Ammon, Chlorides, Mucus, Leucocytes, Erthrocytes, Hyaline Casts, Granular, Cellular, Phosphates, Urates, Oxalates, Squam. Epith., Renal, Diazo, Phthalein

BLOOD—DATE: Hemoglobin%, Erthrocytes, Leucocytes, Polymorph, Lymph, Mono., Eosin, Basoph, Myelocytes, Lymphoblasts, Normo, Megalo, Polychrom, Poikilocytes, Platelets, Malaria, Widal, Wasserman, Culture, Typhoid, Strepto, Color Index

SPUTUM—DATE: Thin, Tenacious, Purulent, Bloody, Gray, Putrid, Polymorh, Lympho, Eosin, Erthrocytes, T. B., Pneumococci, Elastic Fibre, Spirals, Crystals

Remarks— Special Sign

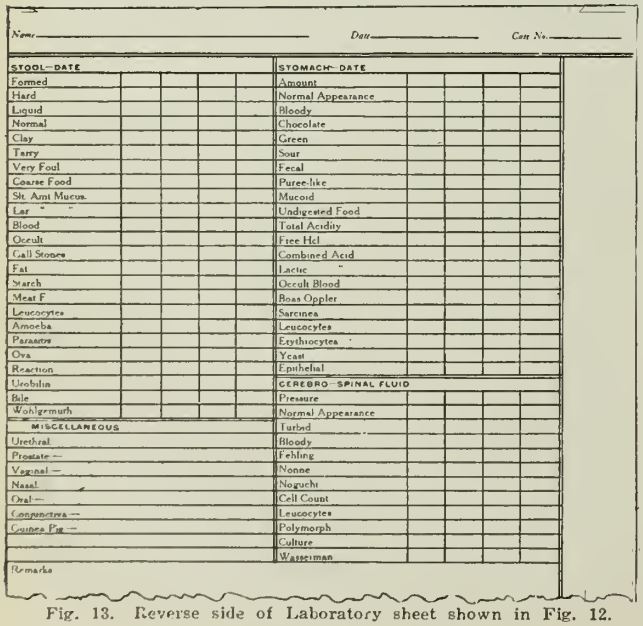
Fig. 12. Laboratory Sheet. Actual measurement of original 8½x11 inches.

and Service—there is an index also of Causes of Death.

The name cards (Fig. 14) are filed alphabetically. Diagnosis, Operation, and Cause of Death cards (Figs. 15, 16, 17, respectively) are filed according to the "List and Classification of Diagnoses" compiled by Dr. James L. Whitney for use in the University of California Hospital. A service index listing cases of each department, proves useful and valuable for compiling annual statistics. (For cards used in this index see Fig. 18.)

Filing

Each history is put into a manila folder, numbered in pencil with the corresponding discharge


Name Date Case No.

STOOL—DATE: Formed, Hard, Liquid, Normal, Clay, Tarry, Very Foul, Coarse Food, Slt. Amt Mucus, Lar " , Blood, Occult, Gall Stones, Fat, Starch, Meat F, Leucocytes, Amoeba, Parasites, Ova, Reaction, Urobilin, Bile, Wohlgemuth

MISCELLANEOUS: Urethral, Prostate—, Vaginal—, Nasal, Oral—, Conjunctiva—, Guinea Pig—

STOMACH—DATE: Amount, Normal Appearance, Bloody, Chocolate, Green, Sour, Fecal, Puree-like, Mucoid, Undigested Food, Total Acidity, Free Hcl, Combined Acid, Lactic " , Occult Blood, Boas Oppler, Sarcinea, Leucocytes, Erythiocytes, Yeast, Epithelial

CEREBRO-SPINAL FLUID: Pressure, Normal Appearance, Turbid, Bloody, Fehling, Nonne, Noguchi, Cell Count, Leucocytes, Polymorph, Culture, Wasserman

Remarks

Fig. 13. Reverse side of Laboratory sheet shown in Fig. 12.

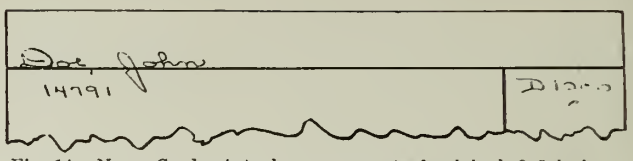


Fig. 14. Name Card. Actual measurement of original, 3x5 inches.

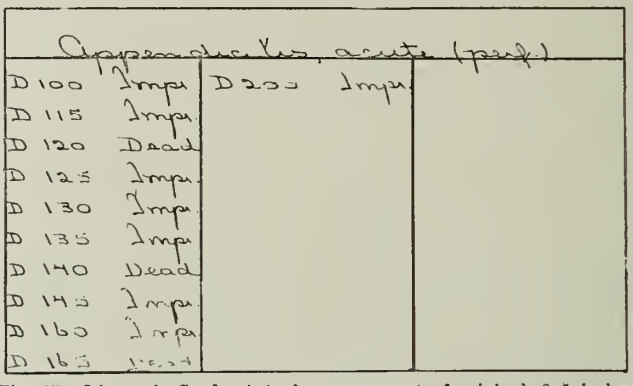


Fig. 15. Diagnosis Card. Actual measurement of original, 3x5 inches.

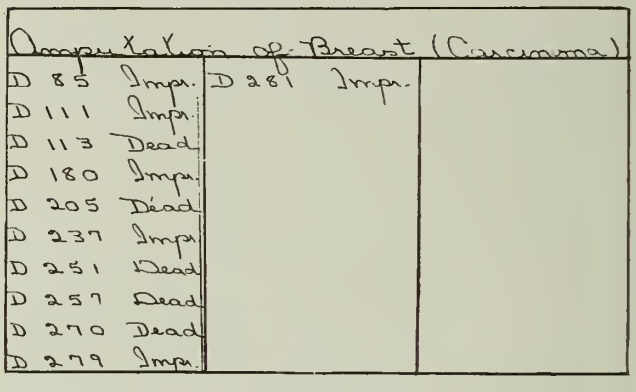


Fig. 16. Operation Card. Actual measurement of original, 3x5 inches.

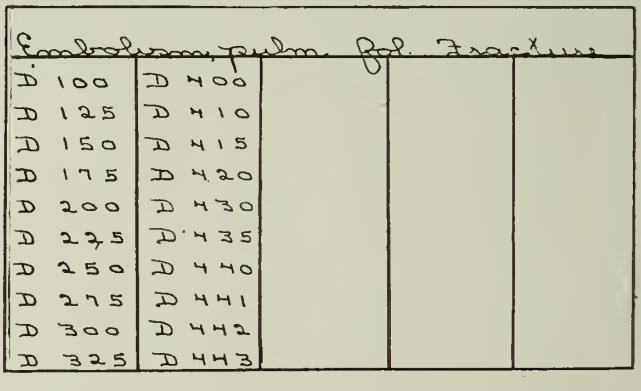


Fig. 17. Cause of Death Card. Actual measurement of original, 3x5 inches.

number, and filed temporarily (i. e., till it is bound), in a regular letter-filing case.

Binding

At the end of the year all discharged cases up to date are bound in volumes of 400 sheets, approximately. The volumes are numbered and then paged with a numbering machine. A typewritten index is made, consisting of the file numbers of that volume arranged in strict numerical succession with the page on which each can be found in an opposite column. Then a title page

is made and a pattern of the rub drawn for the binder. The most popular binding for hospital histories is in grey cloth with black lettering. This binding is considered rush work and arrangements can usually be made for the return of the records in from four days to one week. Binding is a great economy in space and prevents the loss or misplacement of a record.

Annual Reports

From the catalogues already mentioned, annual reports of diagnoses, operations, causes of death, and departmental cases can easily be compiled. A notation in red ink is made on each card, separating the cases annually, so that the indexes may run perpetually.

Borrowing of Records

In cases of re-entry, unbound records may be borrowed by the resident staff until the patient leaves the hospital, during which time they must be kept in the ward with the present history. Bound records may be borrowed for use at the visit, but cannot be kept out of the record room over night. Records borrowed for any other reason than for re-entry must be returned before

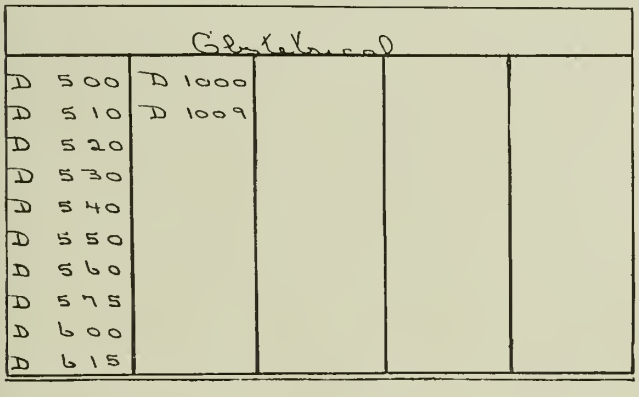


Fig. 18. Service Card. Actual measurement of original, 3x5 inches.

closing hour on the day borrowed. No record is ever allowed to be taken from the hospital except under order of a court of law.

No one who is not connected with the hospital should consult the records without special permission from the superintendent. If information from the histories is desired by insurance companies or outside physicians, an abstract should be made in the superintendent's office.

Properly to carry out the system outlined above, a record clerk should have a certain amount of training. For the past two years the writer has had full supervision of the record work in several hospitals, instructing the record clerks. The approximate time required for this is one year at a hospital, devoting two days a week to the work.

Florence Nightingale.

FLORENCE NIGHTINGALE

The life of Florence Nightingale offers an eternal source of inspiration for the world in general, and for the nursing profession in particular. The story of her devotion and service to humanity, though old in fact, is ever new in its message of purposeful endeavor and faith in accomplishment. Born of wealthy English parents, and given every advantage, socially and educationally, Florence Nightingale early interested herself in the care of the sick and the welfare of the poor. Impelled by a desire to administer to the sufferings of humanity, she overcame her family's opposition to her undertaking a career, went to Kaiserworth to study nursing, and later became superintendent of a charitable nursing home in London. In the Crimean War emergency she volunteered her services, and in charge of a staff of thirty-eight nurses sailed for Scutari. There she organized a nursing service founded on lofty ideals, instituted many reforms, and reduced the war mortality rate over 2,000 per cent. After her return to England, though permanently invalided, Florence Nightingale devoted her time to instituting hygienic reforms, organizing a highly efficient nursing service, founding the St. Thomas Training School for nurses, and assisting in the development of the Red Cross movement, as well as writing and publishing voluminously. She was one of the world's greatest forces working to promote the welfare of the sick.

FIELD AGENTS FOR NEW YORK HOSPITALS

Pursuant to a recommendation of the Hospital Development Commission, of New York, provision is made in the Appropriation Bill, recently introduced in the Legislature, for increasing the number of field agents in the State hospitals for the insane to the ratio of 1 to each 100 patients on parole, making 21 instead of 13 as at present.

One field agent for each of the State institutions for the feeble-minded is also provided.

The Development Commission's recommendation that the position of Director of Prevention and After Care be created to supervise the clinics and social workers was not acted upon favorably this year.

A PSYCHOLOGICAL ESSENTIAL IN GOOD HOSPITAL MANAGEMENT

By BARROW B. LYONS, Editor, Department Health and Modern Industry, The Modern Hospital, Chicago

SPIRITUAL leadership is the rarest type of leadership in the world. It lifts men out of the sordid grind of life. It creates in their minds a vision of impelling beauty which kindles the soul, that life-giving source of upward movement, and carries them onward to the accomplishment of miracles.

Spiritual leadership in hospital work is desperately needed. The souls of many hospital people have been dried by poverty, dried by self-seeking, and by the need to bow a hundred times a day to the merciless necessities which suppress at every turn their desires to serve. If unlimited resources, and the intelligence to use them, were only ours to command, how very, very differently we would administer and direct our hospitals,—how satisfying it would be to the latent springs of spiritual power now dammed back and repressed.

Spiritual leadership in hospital work is desperately needed. For the hospital to accomplish its mission of mercy a spirit of kindness must be all pervasive in the institution. Only when men and women work with their hearts full of kindness are they able to keep themselves keyed up to rendering the conscientious service essential in the care of the sick. Only when this spirit is manifest is the proper mental atmosphere for the recovery of the sick, created. Suggestion, as a therapeutic agent, can no longer be ignored. Trustees, superintendents, medical and nursing staff, and help should be selected for their inherent spirit of kindness, as well as their technical qualifications.

How different, too, would be the results of our efforts. I wonder whether better results would be obtained in a hospital in which the patients received the most skillful medical and surgical attention from men and women who despised their patients (as some physicians and nurses secretly do in the bottom of their hearts) or in a hospital in which kindness radiated from every soul, in which the most perfect harmony and cooperation in service existed, and yet the professional service was mediocre only. I thoroughly believe that the patients would receive greater benefit from the latter than from the former.

Psychologists have scientifically demonstrated how great is the power of the subconscious mind for good or evil over the body. Suggestion, as a therapeutic agent, can no longer be ignored. Yet it is a factor in medical science which not only has been ignored consistently, but has been belittled consciously because of the hostile attitude which the medical profession, until very recently, has maintained toward the discoveries in physical research made by non-medical men.

I know of no hospital which has yet attained a technique in the psychic therapy of patients which approximates the perfect conditions now demonstrated to be scientifically correct by our most expert psychologists; but even to suggest what such conditions should be is far beyond the scope of this article. However, a certain degree of psycho-therapy may be practiced by everyone who aids in the care of the sick person. Superintendent, nurses, orderlies, attendants, all may help create the proper mental atmosphere for the recovery of the patient.

It sounds almost commonplace to say that above all, patients should be surrounded by an atmosphere of kindness. Skillful surgery, aseptic technique, and proper medication are physical conditions which may in a measure be obtained without an inciting spirit of kindness toward the patient, but they never can be obtained in a degree approaching perfection unless this spirit is present. It is only when men and women work with their hearts full of kindness that they are able to keep themselves keyed up to rendering conscientious service. Fear may drive them for a time, but fear has never been known to produce a consistently good service.

Effect of Spirit on Patient

Equally important with the effect which spirit has in determining the physical quality of the work of a person, is the effect which it has upon the frame of mind of those for whom the service is being rendered. There is nothing which encourages a patient more and stimulates his will to live and recover more than the radiation of a kindly spirit from those by whom he is surrounded. A loving spirit should be manifest in every small act that is done for a patient; and. ideally, no one who is not filled with human kindness until he or she is brimming over with it should be permitted to remain a member of a hospital.

In as much as the ultimate power for good or

evil resides in the Board of Trustees, selection based upon spiritual and mental qualifications should be exercised particularly with trustees—but how many boards are selected or retained with these qualifications as one of the primary considerations? They are a far more important requisite in a trustee than the possession of money. A high degree of intelligence and good judgment should accompany the spiritual qualifications. A good heart is sometimes worse than useless without a good mind to guide its promptings; but money—the possession of money—is not a necessary requisite for a hospital trustee. Naturally, it is a valuable asset, but one which should be held subordinate to spiritual and mental qualifications. The consideration of money too frequently interferes with the proper spiritual guidance of a hospital's affairs. Command of money is necessary, but command of money may always be obtained by the demonstrated ability to render service. Any hospital which renders a service better than the average can command resources greater than the average by the intelligent use of publicity. People have received inferior service from hospitals for so long that when one demonstrates its ability to render an unusually good service people will never allow it to lack the necessary funds for very long. Confidence in this truth would enable many boards of trustees to improve their institutions far more rapidly than they do.

What hospitals suffer from more than anything else is suppression—spiritual suppression. In order that the human spirit may develop it must express itself. The recent demonstrations of Freud, Jung, and others show that in the last analysis emotions cannot be successfully suppressed, that they find expression in some way, and if not directed along healthy, normal, constructive channels, prove terribly destructive.

In more than one instance have I seen the love of a nurse for her work and her patients develop into hollow, hypocritical sentimentality, because of the stifling suppression of institutional existence. She was not permitted to act naturally with her superior officers but was forced to exhibit an attitude of formal respect which tended to develop hearty dislike; she was so pressed by her ward duties that she was unable to become humanly acquainted with her patients, or responsive to any but their physical needs; she was permitted no healthy social intercourse with persons of the opposite sex, yet the irresistible impulse of sex led her to seek male companionship in dance halls, or to repress her instincts until dangerous or anti-social mental conflicts developed.

The superintendent is not the least sufferer from suppressed impulses. It has been truly said that man is either a reed shaken by the wind or a wind to shake the reeds. Comparatively few superintendents develop the power to lead their boards, and consequently must accept the spirit of their boards, whether it be their own or not. Their judgment in details and often in the smaller matters of policy may be accepted, but rarely do they possess the spiritual force to direct as they would care to, the more important policies. Therefore they must attune themselves to the spirits of their governing bodies, or suffer. In the case of the average man or woman it is much easier to accept the spirit of the board as one's own spirit, than to submit in act and word and rebel in spirit only; and as one of the most consistent habits of the human mind is to eliminate such conflicts the spirit of the superintendent generally succumbs. When the spirit of the board is a good spirit no harm is done; but frequently this is not the case. A great hospital executive once said to me: "The remarkable thing is that more superintendents do not disagree with their boards." This man had the gift of leadership to such a degree that he selected the men for his own board, just the men he wanted, men noted for their liberal, progressive spirit and sound human judgment. He built his own hospital, just as he wanted it; and organized it just as he wanted it; and ran it just as he wanted; and he has achieved the distinction of controlling a hospital rendering a service bettered by none in this country.

Consider, however, the average superintendent who feels that he must bow to the wishes instead of moulding the wishes of his board—that man must often submit to things against which his spirit rebels. He must, perhaps, consent to the selection of inefficient medical men, simply because they are relatives or friends of board members. To such men he must show deference even though he sees them neglect, or maim, or kill patients; and his boiling wrath and indignation he must bottle up and cover with a smile.

Often he may be placed in a position where he is required to press a patient for money when he knows that the patient can ill afford it, or that the worry of securing the money is preventing recovery. Sometimes he must commit acts of injustice such as discharging an employee to make room for a friend of a board member, or must employ an inefficient person for the same reason, or buy goods at a higher price than the hospital would pay unless a board member were interested.

As for creating a better medical organization by insisting upon staff meetings, better case records, interest in teaching interns—how often can

a superintendent insist upon these things when the men whom he must convince are too lazy or selfish or incompetent to wish to be convinced, and have far more influence with his board than he? In most hospitals the superintendent every day sees patients made to suffer through neglect yet he suppresses his emotions of resentment or his desire to construct better conditions until he ceases to function emotionally.

The same sort of suppression is felt all down the scale; one person forces it upon the next until the whole institution seethes with repressed emotions calling for expression. As a result hospital people sometimes, when they are mentally honest, become cold, hard, and bitter; and when they are not mentally honest they frequently fool themselves and others by wearing a mask of kindness that is but skin deep. I once knew a superintendent of nurses who professed the greatest kindness and interest in her patients and nurses; yet her kindness was so mechanical, so lacking in dynamic force, that repeated suggestions and urging did not develop in her sufficient energy to rid her patients' beds of vermin. Her love had degenerated entirely into superficial sentimentality.

Self-Seeking Motives in Trustees

If trustees who were entirely free from self-seeking motives could be selected for hospitals I believe that a healthier institutional atmosphere would develop. The desires which lead people to accept the responsibilities of hospital trusteeship may be classified as follows:

1. The desire to relieve present suffering.
2. The desire to relieve future suffering.
3. The desire to exercise authority.
4. The desire to achieve social recognition.
5. The desire to do something to "be good" or to purchase a place in heaven.

All of these motives may exist consciously or unconsciously in varying degree in the minds of the same person at the same time. In most trustees the desire to relieve suffering is probably the foremost, except when personal interests are touched upon. Then comes the desire to achieve social recognition; but unfortunately those who thoroughly enjoy the exercise of authority frequently force themselves into the foreground and dominate the councils of hospital boards. Frequently these people are exceedingly aggressive, and not at all infrequently they are the more ignorant and less cultured members of boards.

I was once connected with a hospital in which the policy of the board was dominated by a man of whom one of his commercial competitors said: "Three-fourths of the strikes in this community start in H——'s factory." To illustrate the type of mind and spirit which may dominate an institution presumably destined to render a service of mercy, let me relate an incident.

Once I called upon this man to discover why bills for treatment rendered his injured employes under the Workingmen's Compensation Act of his state were not paid.

"Why we never report our injuries," he rasped. "I'm afraid that if we did they might raise the insurance rates on us. We seldom have very serious injuries here, except when some one catches his hand in a machine or something like that. When anyone gets hurt we just let him go home and take care of it himself. Sometimes he goes to his own doctor and sometimes to the hospital, but anyhow we don't have to bother with him."

"But don't you know that the compensation rates are not regulated by the number of accidents you may have, but by your payroll and the occupations of your employees?" I asked.

"Yes, I suppose that's so," he said, "but anyhow we don't have any bother with them if we don't report."

"But don't your employees complain because they don't get compensation, or because they have to pay the doctor's bills? And don't you realize that you are losing, as well as your employees when their wounds are not properly treated? Many infections could be saved if you sent the cases directly to us, and you would lose nothing, and gain good will if you reported the cases; and furthermore, the law definitely states that all injuries must be reported at once, and your agreement with your insurance company calls for the same thing."

"Well, that may be so," he admitted; and after that he paid more attention to his injured workers.

Yet that is the type of mind, stupidly selfish in the extreme, which dominated the policies of that institution. When the question came up of developing a broader and better service, the fairer minded members of the board permitted this man to kill the plan which would have meant a great development in the usefulness of the institution.

Why did they kill the plan which they admitted would have been of great benefit to the working people in their community? Because their social and business relations with this man meant far more to them than the welfare of the neighborhood; because forcing the plan over the aggressive opposition of this man would have meant a social break which they were not willing to make, and because they feared the vituperation which this man would almost certainly have vented among many business men of the neighborhood who might bring financial support to the insti-

tution. They lacked the courage to create a great service, trusting that its intrinsic value would bring to it sufficient support.

Inherent Kindness a Qualification

Everyone who has known the inside management of hospitals has known of similar instances; yet not until a board frees itself of this type of leadership can it create the best conditions for the recovery of those whom it would serve. Not only trustees, however, but superintendents, medical staff, nursing staff, orderlies and even help should be selected because of their inherent kindness, as well as their technical qualifications. I want even my scrubwomen and cleaners to be kindly as well as efficient people, in order that there may be no discordant note in the entire organization.

Perhaps there is today somewhere a hospital in which the spirit of kindness and brotherhood is all pervasive. This is not an idealistic dream. Careful, scientific selection of members of the organization from the members of the board down to the scrubwomen is not impossible. If such an institution does exist in it will be found a spirit of devotion to the work, which insures a wonderful cooperation of all elements in the creation of a great service. The spirit of hope, and cheer, and kindness so emanates from the entire hospital force that it is like coming home from a long journey for a patient to enter its doors.

Such an institution does not find itself handicapped for lack of funds, nor does it have difficulty with its help, nor does it find it difficult to secure competent and interested interns, nor does it suffer from a lack of student nurses, nor does it lack the services of the most competent surgeons and physicians in its community. All that it lacks is space in which to care for the constantly increasing number of those afflicted by injury or disease who come to its doors for relief and comfort.

PRESENT TUBERCULOSIS PROBLEMS

In an unusually well written paper entitled "Tuberculosis Problems of Today, Doctrines, Conditions and Needs," and appearing in the American Review of Tuberculosis March, 1920, Stewart of Ninette, Manitoba, discusses tuberculosis problems under the subdivision, "Doctrines, Conditions and Needs." Tuberculosis is more a social than a medical problem; less a disorder of the individual than a disorder of the community. Its occurrence in the individual depends upon the conditions which enter into his life. Its development out of social conditions connects it up with every movement for the betterment of living conditions; nothing in a community is without relevance or interest in the consideration of this disease. The stresses of army life have broken down many soldiers, but this has been balanced to some extent by the number of those who have been actually improved by the drill, regular life, and outdoor work of the army. Asphyxiating gases have not aroused tuberculosis. The good results of the war have been a better understanding of the disease, more accurate diagnosis, a more general resort to treatment in early cases, more and better equipped institutions for treatment, a juster idea of the tuberculous man's place in the community, and a fuller utilization of even the definitely tuberculous man for service. The most crying need is information that shall convey the truth about tuberculosis.

Home of Florence Nightingale, near Ramsey, England.

The MODERN HOSPITAL

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FINANCING THE GROUP INDUSTRIAL HOSPITAL

In outlining the plan for "The Group Industrial Surgical Hospital" presented in the Department of Health and Modern Industry, page 493, Dr. A. M. Carr entirely disregards the matter of expense. He is perfectly right in assuming that expense *should* be a secondary consideration when the conservation of human life and limb is at stake; but in order to make such a plan practicable, one first has to find men to supply the money. To pay a chief surgeon $15,000, employ competent assistants at correspondingly fair salaries, pay a good superintendent what he is worth, employ graduate nurses for all ward work, feed everyone in the hospital properly, would be an exceedingly costly operation.

While there is an intense need for the type of hospital described by Dr. Carr, there is also a great need for practical idealists in industry who can see the need for it. Dr. Carr bases his argument for the hospital on a purely utilitarian basis, believing that the cost over income would be covered by increased physical and mental efficiency on the part of employees treated in the hospital, as well as by the creation of better feeling toward the industries operating the hospital. This is a difficult matter to prove. It might also be argued that if the plan were based upon purely utilitarian purposes it would be quite certain to fail. If the backers were genuinely anxious to be of service to their employees as well as to render profits to their stockholders, and the hospital were simply a part of a much more extensive effort to serve those within the industries involved, the plan would have a better chance for success.

Evidently the plan has grown from an intense desire to serve on the part of Dr. Carr. Unless the men who were ultimately responsible for the hospital were infected by the same rare spirit, the institution would probably deteriorate into little better than the usual hospital which Dr. Carr pointedly condemns.

One point that Dr. Carr has not mentioned is the proposed method of paying for the service. If the chief surgeon received the substantial salary suggested, would he or the hospital collect the fees for surgical service? Presumably the hospital. This would be a source of income which few hospitals at present enjoy. If properly graded, surgical fees might go far toward defraying expenses.

Furthermore, as soon as the hospital established a high reputation for the unusual service which it could render, it would probably attract many wealthy persons desiring the benefits of its organization. Such persons might be admitted and charged surgical fees in excess of those for industrial workers. Such fees, in order to be fair to the medical profession, should not be less than those charged in private practice for similar service. They might very possibly defray by far the greatest part of the expenses of the institution and certainly cover the cost of an exceedingly high grade of surgical service.

To develop the institution to this point, however, would take unusual foresight and a board of trustees which was willing to spend a large amount of money without being disappointed if it did not produce the results they hoped for. It is sincerely to be hoped, both for the sake of industrial surgery and for the sake of the industrial worker, that Dr. Carr will succeed in locating such a group of men.

GENERAL HOSPITAL TREATS INFECTIOUS DISEASE

An excellent illustration of the successful application of the principles of medical asepsis in the hospital care of communicable diseases, as laid down by Chapin and described and illustrated by Richardson in his admirable series of articles in the April (1919) to February (1920) issues of the MODERN HOSPITAL, may be found

in the work of the infirmary of the University of California, as described by Dr. Robert T. Legge in his article on Students' Health Service of California in the May issue of *Modern Medicine*.

As the private hospitals of Berkeley, California, will not take communicable diseases, the presence of any such case in any of the boarding and fraternity houses dooms that house and all its residents, infected and uninfected alike, to quarantine by law. What this meant in non-attendance of whole groups of students can readily be imagined. With the advent of the infirmary and the practice of medical asepsis, obviating the necessity of a separate contagious building, all this has been changed, much to the relief of both the students and the university officials. Now when a student suffers from a contagious disease, or has been exposed to it, he or she appears at the infirmary for examination and advice, and if necessary, admission. If the clinical and pathological examinations show the presence of a contagious disease all of the members of the house at which the patient resides are examined, in order to discover all missed and carrier cases. If any are found they are also sent to the general infirmary. Concurrent and terminal disinfection are used, but fumigation has been abolished. The infirmary records show that no cross infections have ever occurred.

A NEGLECTED SOURCE OF INCOME

The suggestion embodied in Dr. Goldwater's article on page 436, entitled "What Should Private Patients Pay," is an exceedingly valuable one.

It would seem to be almost self-evident that well-to-do private patients should meet the interest on the capital cost of rooms and the other facilities they use, funds for the construction and purchase of which were contributed through donations voluntarily made by philanthropic individuals for the care of the sick; and that this interest should be used in the further care and treatment of indigent patients. This is good ethics. Were the money, so donated, invested in high class securities, the hospital authorities would never for a moment consider using the funds for any other work than the maintenance of the charitable work of hospital.

But not only is such a charge upon well-to-do private patients good ethics; it is also good finance. It takes cognizance of the important factor of the cost of the service to private patients, and of two other important factors—the cost of the medical service, and the patient's share of the current expenses of the institution. Were the hospitals of this country as a whole to act on this suggestion, it would undoubtedly add several million dollars annually to their income. A conservative estimate places the number of private hospital beds in this country at 40,000. On the basis of present costs, these beds represent a capital outlay of about $200,000,000. The interest on this amount at 6 per cent would be $12,000,000. But even if we take the actual cost of the construction of these facilities under pre-war conditions, the interest would amount to about $6,000,000, an item not to be disregarded in these days when hospitals are having difficulty in securing funds for proper maintenance.

HOSPITAL PROGRESS

The month of May saw the birth of a new magazine, *Hospital Progress*, the official organ of the Catholic Hospital Association of the United States and Canada. THE MODERN HOSPITAL welcomes it warmly as it is gratifying to see another magazine of high purpose enter the hospital field.

Hospital Progress is a magazine with a mission that commends itself to all who have the progress and prosperity of our hospitals at heart. The character of this mission is clearly stipulated in the salutatory, editorials, and articles of its first issue. "It wishes to become," runs the salutatory, "the medium through which the best thought and hospital service to the sick will work into the lives of those who are consecrated to this service—consecration to service must be wrought into the lives of all who care for the sick. *Hospital Progress* wants to help all to realize more and more deeply from month to month that care of the sick must become in very deed a consecration of mind and heart and soul." In one of its leading editorials we find this statement: "Today there is ample evidence to prove that adequate service to the patient is far from omnipresent. To learn the causes of this inconsistent state, to help supply what is wanting and to right what is wrong, is the purpose of the Catholic Hospital Association; and as a constant aid to the attainment of this end, *Hospital Progress* finds a positive reason to exist.

Through its various channels of knowledge and experience this journal, the official organ of the Association, shall endeavor to keep before its readers the true philosophy of work in the medical sciences, together with such information as shall practically help the hospital not only in its various scientific functions, but also in the plans and building of its physical structure." Still again, in a special editorial to the Mothers General, Mothers Superior and all the Sisters working in the Catholic hospitals of the United States and Canada, Father Moulinier, the chairman of the

magazine's Executive Committee, says: "We must avoid as well in our hospitals as in our magazine, all fads and fancies. We must find the facts, real, basic, and controlling facts as they are at work in our hospitals. We must face these facts with calmness, with deliberation, with a firm determination to bring progress out of them no matter how adverse and insurmountable they may seem. They must be thought about and talked about and written about for the benefit of all the hospitals on this northern continent. Whether these facts be financial or scientific or ethical or religious, or whether they be buried down deep in human nature, whether they be locked up intimately with personal or professional pride, conceit and vanity, it makes little difference, they must be brought to light. They must be made to stand before the tribunal of an institutional and, if possible, a national sense of what is right and just, and must be made eventually to yield to a sane and saving sense of an ever unifying conviction as to what is right and proper for the bringing about of a true and safe progress in institutional scientific service of the sick."

The purpose of the leaders of the Catholic Church to dig out and make a practical application of the controlling facts as they are at work in their hospitals is evinced not only by this declaration of faith and purpose on the part of *Hospital Progress*, but by the thoroughgoing, searching surveys of hospitals and allied institutions and their activities which have recently been made in several of the larger communities in this country, notably Pittsburgh and New York City, under the leadership of the archbishops of the dioceses in which these communities are located. Here again, facts were sought out in order that they might form the basis of a scheme for hospital coordination and cooperation, with a definite view to bringing all the Catholic hospitals of these communities up to the minimum standards set by the American College of Surgeons, and to provide such additional facilities and departments as the needs of the hospitals and the community may dictate.

Animated by a desire to base their progress upon underlying facts and inspired by the leadership of such a journal as *Hospital Progress*, the Catholic hospitals of the United States and Canada may be expected to build an enduring structure of service in the cause of good health.

A GLIMPSE INTO VOLUME FIFTEEN

What considerations should determine the selection of the individual members of hospital boards of trustees? How should such boards be organized? What are their duties and responsibilities? How can a board of trustees best select a superintendent? What is the board's relationship to the hospital's employment problem? What have the trustees a right and a duty to ask for in the way of reports from the superintendent? Should the trustees or the superintendent take the initiative in the raising of funds? Have the trustees the right to ask the superintendent to curtail essential expenses in order to meet a crisis in the hospital's finances? What are some of the most effective ways of raising funds? What should be the relationship between the board of trustees and the superintendent, the medical staff and the nursing staff? How should auxiliary committees be organized and what should be their relations to boards of trustees?

These and kindred questions will be dealt with comprehensively and authoritatively by a group of our leading hospital superintendents and trustees in early issues of THE MODERN HOSPITAL.

* * * *

Hospital ventilation is receiving just at present a great deal of attention. This has doubtless been stimulated by the group of articles we have recently published, by Dr. Ellsworth Huntington, on "Air Control and the Reduction of the Death-rate after Operations," and "The Purposes and Methods of Air Control in Hospitals." We have, therefore, decided to continue the discussion of this important subject, and in the near future will publish articles by Mr. Konrad Meier, a heating and ventilating engineer of Winterthur, Switzerland, who is familiar with Professor Huntington's research work but who does not agree with him on all points, and by Prof. John R. Allen, dean of the College of Engineering and Architecture of the University of Minnesota.

* * * *

The commendable work performed among our doughboys by the lads and lassies of the Salvation Army has centered public attention upon the work of this organization. One of its greatest activities—an activity often lost sight of—is its hospital work, and this will be fittingly described in an illustrated article which has been prepared for us at their headquarters.

* * * *

Active workers in the tuberculosis campaign, whether superintendents, nurses, social workers or architects, will find it profitable to read several articles which will appear shortly and which bear directly on their field. One of these is by Mr. Walter D. Thurber, the managing director of the Illinois Tuberculosis Association, on "Spotting Life-saving Stations on the Map of Illinois." Another is by Dr. H. T. Vermillion on the Southern Baptist Tuberculosis Sanitarium, one of the important

tuberculosis sanitariums of the South, and still a third by Harold Field Kellogg on the Norfolk County (Mass.) Tuberculosis Hospital.

* * * *

Mr. Warren C. Hill of the firm of Kendall Taylor Company, architects, Boston, is well known by those of our readers who are hospital architects. The plans of the Stevens Clinic of the Union Hospital of Fall River, Mass., were prepared by his firm, and are fully described by him in an illustrated article which will be published shortly. Another architectural article which will interest architects faced with the problem of planning additions to existing hospitals is one by Mr. John William Donahue, architect, on the addition to St. Vincent's Hospital, Worcester, Mass.

* * * *

The therapeutic side of hospital work will be represented by a stimulating article on hydrotherapy by Dr. J. H. Kellogg, of the Battle Creek Sanitarium; the management side, by an article on the "Perpetuation of the Original Investment in Hospital Building by Creating a Sinking Fund," by Mr. Henry J. Gilbert, vice-president of the Saginaw Welfare League, Saginaw, Mich.; and the mechanical side, by an article on the "Care and Up-keep of Boilers and Engines," by S. E. Balcome, who was for many years the engineer of the Worcester City Hospital, Mass.

* * * *

Space prohibits our commenting in detail upon other articles scheduled for publication in the next volume. Among them, however, we may mention these: "The Place of Hospital Social Service in the Modern Hospital," by Deborah H. Barnes, head of the Social Service Department of the Milwaukee Children's Hospital; "Occupational Therapy in State Hospitals," by Dr. William Rush Dunton, Jr., assistant physician, Sheppard & Enoch Pratt Hospital, Towson, Md.; "The Carney Hospital Obstetrical Department," by Dr. Fred W. Johnson, gynecologist, Carney Hospital, Boston; "The Hospital Hostess—a New Departure," by Ruth H. Bachus, Rochester Homeopathic Hospital, Rochester, N. Y.; "The Equipment of the Small Pathological Laboratory," by Dr. W. A. Hinton, pathologist, Wassermann Laboratory, Massachusetts State Department of Health, Boston, Mass.; "The Reconstruction of the Tuberculous Eudowood Sanitarium," by Dr. M. F. Sloan.

VENEREAL DISEASE CONTROL THROUGH HEALTH CENTER

An analysis of the plans for the proposed Health Center at Norfolk, Virginia, as printed elsewhere in this issue, is of interest from the standpoint of venereal disease control—partly because the scheme as outlined is so comprehensive that one is struck immediately by the possibilities of detecting and remedying disabling manifestations of gonorrhea and syphilis in all the groups provided for.

The officials of Juvenile and Domestic Relations Courts meet with a considerable percentage of cases where the delinquency is attributed to, if not caused by, gonorrhea and syphilis. It is readily understood that venereal disease plays no unimportant part in disturbing home ties.

With facilities at hand for the prompt examination, diagnosis and treatment of men, women, and children brought before a keen human and humane Judge, presiding over the more or less informal and private judicial proceedings of these courts, unlimited opportunities are offered for reclamation, rehabilitation, and readjustment.

From the need for medical diagnosis and aid grew the demand for a polyclinic which is planned to meet the general health center requirements, and which gives the venereal service the needed space to meet the clinic requirements.

The Pre-Natal Building is more than its name implies, and opens up an unlimited field for an educational as well as therapeutic attack upon gonorrhea and syphilis. In this building can be housed not only the pre-natal work, the post-natal advice service, the pre-school age examinations, the mothers' health clubs, but also the classes for midwives and the like—all groups in need of examination for freedom from communicable disease, as well as instruction and treatment. No one will deny the advantage of treating an expectant mother for syphilis, or the child's hereditary manifestations. No one will thwart the effort to inculcate cleanliness in the midwife, nor deny that a knowledge of the salient points about gonorrhea and syphilis will aid her in her tasks.

The detention home has no relation to prostitution. As a place for holding children during the period required by the court to properly investigate cases, however, this Health Center offers through such investigations a unique opportunity to spread social hygiene information, and to bring under the jurisdiction of the Health Department those individuals found to be infected.

A very conservative estimate would be that Norfolk as a city has need for treatment facilities—pay, part pay, and freed—for some 4,000 individuals in a year. It would seem that the space provided should be ample, by arranging a "staggered" schedule of hours by sex and color, to provide for the part pay and free treatments required in a city of 100,000, especially as the venereal disease service can be operated as a separate entity, at night or any unusual hour, by the use of the special entrance.

KATHERINE McCLUGHAN'S SECRET

By VIOLA L. PETERSON

"How much further up the sthrate be the place locatid?" asked Katherine McClughan in a tone of one desiring information.

"It is only a short distance; but perhaps you had better let me call a cab, Mrs. McClughan." The blue eyes of the speaker looked anxious.

"Come along and don't be a-talkin' cab t' me," came back the answer with a forced roughness in the laugh. "Katherine McClughan has allers been seen a walkin' these same sthrates afoot, whereiver she took a notion t' go, an' if iver ye find yerself a dhramin' that she's adoin' it ony ither way, just raalize that its a dhram that'll niver come thrue."

"Yes, I know," replied Margaret, "but you have been working hard lately, when you should have been resting; for you know you will need all your strength."

"And won't I hev all there be uv it to hev? Nobody has any uv it, that I know uv, to be shure. But what do I want with it afther all?"

Margaret looked up in surprise at her companion's tone, and caught an expression of longing on the usually cold face. "Want with it? Why, that does not sound like you, Mrs. McClughan; for you know you need it all for the operation."

Again the soul of Katherine McClughan was perfectly masked. It had been unmasked but for one brief moment, but it should not occur again. No. No one should guess her secret. "Yes, I suppose it be so, choild. Though the docthors do be sayin' that tain't nuthin' serus, an' ye know I niver was no weaklin'. It's a big nate lookin' buildin', ain't it now? I wondhor if its ez clane on the insoid ez it is on the outsoid."

"As neat as wax," was all that Margaret could reply before a white-robed attendant appeared to admit them.

"Could ye be a-tellin' me if the superintendent be in?" In reply the white-robed figure ushered them into a waiting room, saying that the superintendent would see them in a minute.

Mrs. McClughan sat down stiffly and surveyed everything in the room with a cold scrutiny. After a while she got up and walked over to another chair, where she could look out of the window. "This is a moighty lang minute, I'm a thinkin'," she said at last. "Seem's t' me they'd hev to be more accomidatin' to their customers, if they want to kape up the business."

"I am afraid the business here would have to be kept up, whether the customers thought they were very well accommodated or not," Margaret replied, glad to break the silence.

Mrs. McClughan pressed her lips firmly together and swung her foot back and forth. Margaret said no more. Soon Superintendent White came in. She was large and dignified and important.

After the necessary form of entering the patient had been gone through, they were ushered upstairs, through long, clean halls, past many doors. Cases of clean, polished instruments showed through one door. They were led up the stairs, and over to a big room in the corner. Here a nurse met them.

"I am so glad you are to have this beautiful room, Mrs. McClughan. It is so big and light and airy, and right on the corner, too, so you can see out on both streets," Margaret said, taking a view for herself from the windows.

"Yis, its well enough to be sure. Much better'n the warrd. I don't know how the poor cratchurs there stand it, at all; with all the moanin's agoin' on around 'em. The Lard hilp the poor souls. An' did ye notice the little lad wid the crutches, Margaret? He must shure have been bad hurt. He must shure that, an' how he shmoiled up so swate loike into the face uv the nurse, whin he found he could take jist one little stip at all. But we must all do our own sufferin' and the Lord knows we have plinty on it." And Mrs. McClughan drew herself together again with a formidable look.

The nurse seemed to know all about Mrs. McClughan, when and why she came, and just what would be done.

"How do you like your room, Mrs. McClughan?" she asked.

"It is pritty good fur the place," she said.

"We think it is one of the most pleasant in the hospital, and I hope you will enjoy it," the nurse replied cheerily. Then she told Mrs. McClughan that it would be best for her to go to bed at once. Margaret told Katherine that she would see her the next day, smiled brightly, and went away.

The nurse put her patient to bed, and said, "If you want anything, just ring the bell." Then she too went away.

"If I want anything, indaad! Ock Marvin! I moight ring the bell furiver an' a day, an' it would niver bring me what I'm a pinin' afther. Patsy, oh Patsy, why did I send yez away?"

It mattered little to Katherine McClughan that hers were the large room looking out on both streets. Her vision did not depend on windows nor lights nor streets. Her eyes were looking into the past. Her face showed that what she saw there was greatly disturbing to her soul.

She knew not how the time elapsed; but presently the nurse brought in Father Ryan.

"I am sorry to see you here, Mrs. McClughan," he said. "Will your operation be a serious one?"

"They do be a tellin' me I am likely to pull through all roight," she answered indifferently.

"I hope so certainly," replied the Father, "but it is best to have all settled, and not to neglect any necessary means, you know."

She flushed him one withering glance. Her lips were firmly drawn.

"This is a trying time," he went on. "I suppose Patrick will be here."

"Mr. McClughan be a workin' and will not come unliss he be sint for."

"Ah, and just let me know, if you need my services at any time," the Father said, and bade her adieu.

"So it is bisth to hiv ivery thing sittled, it is; but the tillin' uv it t' yez would hiv little t' do with the raal sittlin' uv it, accordin' to my mind. He thought he'd find out me secret, Patsy. But he didn't do it, did he, Buy? Katherine McClughan still kaaps her own council. Did ye think I'd be a tellin' him how I sint yez away with harrd wurrds an' complainin' spaaches, sivin waaks ago the mornin', Patsy? An' ye niver gin me a harrd wurrd nor a blow in yer loife. But I can't furgit yer last look, Patsy, so kind o' sad an' reproachful. Oh, yis, I know ye'll furgive me. Ye could niver do no ither way wid yer kind harrt. But will the Holy Angils be able to furgive me bein' so dridful silfish? I hev more fear uv thim, Patsy."

The morning for the operation came. Mrs. McClughan's face was calm and set. When she reached the operating room she was still herself. "It's a foine roid ye hev given me, gintlemen," she said.

"It's not every day that you have a ride like that, is it. Mrs. McClughan?" replied the doctor.

"Not ivery day t' be shure." Not, indeed, since the day that Patsy carried her across the brook, she thought.

She took the anesthetic as if she were breathing the nectar of flowers, and it was only when she became unconscious of her own doings that she betrayed herself. Then she called, "O Patsy! Patsy!" And when the operation was over and she was coming out from under the influence of the anesthetic, "O Patsy! Patsy!" she called again, "will I niver see yer smilin' face agin? I kin niver endure it widout yez, Patsy! An' it's all me own fault intirely—all me own fault."

Mrs. McClughan's remarkably strong constitution bore its trial even better than the doctors had hoped. Yet when all cause for great suffering was past and the patient was kept perfectly quiet, there was still an unaccountable height of temperature, and Margaret was told that the doctors feared a septic condition. She knew that this meant danger, and said to herself, "There's a mistake somewhere—there certainly is a mistake somewhere."

* * * *

Mrs. McClughan's supper tray stood on the stand by her bedside untouched. Her face wore a look of homesickness. She did not hear the door open; did not know that anyone had entered, until the nurse said that she had brought someone to see her.

Mrs. McClughan turned her eyes toward the door. There stood Patrick, awkwardly holding his hat in his hands. In his eyes was a questioning, timid look, mingled with joy. His face was worn and haggard.

"It is just about supper toime, Patsy. Ye had bitter git riddy, mon. Ye kin put yez coat an' hat on that cheer."

Patrick obeyed, then drew a chair to the bedside. "I be roight glad to hev another supper wid yez, to be shure," he said.

"It is well ye didn't wait much longer, mon, or ye'd hev hed to hev ate it alone, " she answered.

But Patrick was always slow of thought. "Now thet would not hev been so plisint ez some moight think. I be roight glad uv the honor uv addin' a little to the faast, madam," he said, producing some fine oranges with the air of one who is winning his way.

"Mr. McClughan ye be ez extravigint ez iver." But she surveyed the big oranges gratefully.

"An' who in the wurrld has a bitter roight. Kin yez tell me, girl?" he rejoined with a broad smile.

"Thet I kin not, Patsy; but shure, mon, ye don't think I know the affairs uv ivery one in this wurrld?"

The next day the nurse told Margaret that the fear of the septic condition had passed. The patient's temperature had lowered greatly, and her respiration was nearly normal. Margaret's heart beat more freely as she ran up the stairs.

Katherine's voice greeted her. "Well, Margaret, choild, ye look rall brisk this marnin'. But ye air intirely out uv brith. Why will ye be a killin' yersilf a runnin' up thim sthairs?"

"Now, Mrs. McClughan, how can you ask, when you know I came to see you?" And the soft, white fingers closed over the thin brown ones. "And are you really feeling a little better, Katherine?"

"I think I shall soon be a peelin' the parathies, an' a seein' afther the house."

"And right glad you'll be of it, I'm sure," answered Margaret.

"Sthrange thet I shouldn't be under the carcumstances, Mrs. McClughan replied lightly; but she never explained those circumstances. And Margaret wondered, seeing that the cloud was lifted from the soul of Katherine.

At the street door Margaret met Mr. McClughan, whom she knew had been working out of town for several months—a position which he could not very well leave, supposedly.

"So you are back, Mr. McClughan," she said. "I am so glad you are here."

"And I am roight glad to be here, I ashure ye," and Patsy's rough hand nearly crushed Margaret's in its big embrace.

Thus Margaret guessed the secret. But with her it was always held sacred as the secret of Katherine McClughan.

AN EXPERIMENT IN LAUNDRY SUPERVISION AND CONTROL IN A GENERAL HOSPITAL

By CHARLES F. DIEHL, Superintendent of the Hospital for Deformities and Joint Diseases, New York City.

The laundry problem in hospital administration is a difficult as well as an important one to solve. Plenty of clean white linens, muslins, and towels are absolutely necessary to the hospital. To produce this result with a modern steam laundry is not a difficult task, and to accomplish the mere cleansing and ironing is not a costly one; but to operate a laundry circulating system, free from any considerable destruction of material and with only a reasonable amount of loss in inventoried articles, is quite a different undertaking. The experience of a general hospital in introducing a more exacting system, in place of a loose method of laundry supervision, and a comparison of the results of the two systems may serve to show how efficiency as well as economy in operation may be accomplished in laundry work.

In this hospital the stock of linens, muslins, and towels had been so greatly reduced, that ofttimes there was not sufficient clean bed sheets, pillow-cases, and towels to go around. In order to increase the efficiency of the institution, it was necessary to add very materially to these stocks. At this time the question had been raised whether or not an extravagant amount of bed sheets, pillow-cases, and towels, was being purchased. In order to determine the answer to this question a complete system of checking every piece of material both ways was put in force in the laundry.

Inventories at the end of every month for four months of all material in use in the hospital showed a 12 per cent loss in the laundry at the end of the first month, an 11 per cent loss at the end of the second month, and a 9 per cent loss at the end of the third month. This would mean a total loss in twelve months. The greater proportion of the losses was in bath towels, face towels, and doctors' hand towels, but there was a considerable loss in bed sheets and pillow-cases.

What this depletion of stocks meant to the smooth running of the institution, every hospital man knows; and how tense was the strain upon the laundry is almost impossible to conceive. It had to be operated at capacity every day and there never was any let-up. To relieve such a condition as this was worthy of thought and active supervision.

The system, so called, which was in use for years in the hospital, consisted of filling in a laundry slip on which was entered the number and name of the various soiled articles returned to the laundry. In following a basket of soiled linens to the laundry the superintendent discovered that there was really no counting of the material, and that even the laundry slips were not retained; that all the different wards and floors had distinctive marks on the linens, muslins, and towels belonging to their service, and

that the linen room returned to those various wards and floors such distinctively marked pieces as came through the process of laundering. That was all there was to the system.

Features of Laundry System

In going over the entire problem the following system was worked out:

That the hospital would begin with a complete stock for every ward and floor;

That the laundry slip, then in use, would be retained;

That a duplicate of the slip or a carbon copy would be kept by the charge nurse;

That laundry bags to contain every soiled thing intended for the laundry from each ward or floor, would be put into use;

That one man should collect all soiled linen from every ward and floor and that he also should return all clean linen from the laundry to its respective station;

That an employee should count the contents of every bag brought to the laundry and check the slip which accompanied it, and then send that slip to the linen room as a requisition for clean linen;

That all torn or otherwise damaged pieces should be sent out of the linen room and kept for a board of condemnation consisting of the superintendent or his assistant and the house-keeper, who would decide whether this material should go to the sewing room for repairs or be used for porter's wiping cloth; if it were condemned, a new piece was to be taken from the shelves and added to the inventory to replace the condemned one;

That the stock decided upon for each ward or floor would be maintained numerically the same until experience showed the supply to be inadequate.

This system was installed at a cost of $180 for canvas bags and additional baskets in the sorting room, and an added expense of $70 and maintenance per month for the extra labor involved. The wards and floors of private rooms and operating rooms were stocked up with what was deemed to be an adequate supply. Instead of the inventory totalling 3721 as was shown by the first count, we now had 5763 articles.

Results of System

The entire system was then put in motion, and at the end of the first month it had led to the following satisfactory results: Only thirty-six pieces were not returned. Of these, fifteen articles were sent to the sewing room for repairs, nineteen were condemned and therefore replaced, and only two were unaccounted for. This good work kept up month after month and never was there a relapse into the old condition. An inventory taken at the end of the first year shows a result equally as good as the one taken at the conclusion of the first month. The strain on the laundry was removed. There was always a generous supply of clean linens for the hospital, and the saving in dollars and cents was enormous.

Among the many benefits following the successful operation of the system was the solution of a help problem in the laundry. Prior to that time, owing to the extra heavy duties placed upon this department, there was always a dissatisfied crew, rarely a complete one, and almost every day there was a new face in the laundry. But after the introduction of the system, with the easing up of the strain, the workers were contented and remained in the hospital's employ. There were only six new employees in one year.

The good work did not stop there. Its effect could be seen in other parts of the establishment. Perhaps the introduction of system and supervision accounts for the fact, or perhaps the removal of friction and tension in one department influenced the morale of another. However, lasting, satisfactory results were obtained without introducing a complex system. This point is essential to the success of the experiment. If, in place of no system, an intricate one had been introduced it probably would not have been so well received, and would not have met with so much cooperation.

NEW METHOD OF SUN TREATMENT PROVES THERAPEUTIC AID

From France has come a new method of employing the rays of the sun for purposes of treatment. This is now being applied at The Children's Hospital of Boston. In this latest method, large double convex lenses are utilized, through which the rays of the sun are intensified. These rays are concentrated directly upon wounds, discharging sinuses, tuberculous and infected joints, and other local

Fig. 1. This illustration shows the large, long focus lenses in use in the Children's Hospital in Boston. The lens, enclosed in a cylinder made of wooden slats and wire over which a thin white covering is tightly stretched, is so placed on its adjustable tripod that the sun's rays fall perpendicularly onto the affected part of the patient. In this position it produces the best results.

affections, the results of the employment of this method as a curative agent in these affections, have proven very successful.

What is now the accepted method of sun treatment was established a few years ago by Dr. Rollier at Leysin, Switzerland. In his method, however, the whole body of the patient is, as a rule, exposed to the sun, whereas in the new method only the affected parts are exposed. The curative power of the sun attracted wide attention during the war by its successful use in war infections. Prominent military hospitals and prominent military surgeons have expressed not only their approval of its therapeutic use, but also their opinion that the sun as a disinfecting agent and stimulant toward normal processes of healing will be a powerful auxiliary to medicine and surgery, and a promising object of study and research.

Features of New Sun Treatment

The lens in use at The Children's Hospital is twelve inches in diameter, and the sun's rays directed through it reach a focus at a distance of seventy-two inches from the lens. The focal point is dangerous, and will burn wood in a few seconds; therefore, the wound or affected part is placed half way, or a little more than half way, between the lens and the focus. At this distance the circle of light thrown upon the patient is from three to five inches in di-

ameter. The rays, though very bright, can be watched by the nurse through colored glasses, and can be borne with comfort by the patient. The heat is not intense at this distance from the focus.

The patient's head is protected in some way from the sun. If he is in such a position that he can see the rays from the lens, he is provided with dark glasses, as the bright rays are very fatiguing, and possibly injurious to the eyes.

Treatments are of five minutes duration at first, increasing in length each day until an insolation of half an hour, three quarters of an hour, or an hour is reached. Treatments can be given twice a day.

Method of Employing Lens

The lens is enclosed in a cylinder made of wooden slats and wire, over which a thin white covering is tightly stretched. The cylinder is so placed on its adjustable tripod that it directs the sun's rays to the centre of the lens, through which they must fall perpendicularly onto

Fig. 2. This method of sun treatment is being succesfully employed in cases of lupus, tuberculous and infected joints, wounds, and discharging sinuses.

the skin of the patient in order to produce the best effect. It is hung by cords to a support in such a way that it can be turned to the exact angle required, and there fastened securely. This cylinder aids the nurse in measuring the correct distance from the lens to the patient.

When the sunlight is very hot, it is necessary to make the circle of light larger by moving the lens nearer to the patient. When it is poor, the circle can be made quite small by moving the lens farther away, the amount of heat increasing as the surface under treatment approaches the focus of the lens.

The sun in winter, spring, and autumn in this region is valuable, but the length of treatment will vary, of course, according to the heat of the sun, being naturally longest in winter. In winter, spring, and autumn, the lens treatment is given between 10:30 a. m. and 4:00 p. m., while in summer it is best in the early morning and late afternoon.

The method of using the rays of the sun through large lenses of long focus comes from Brittany, where it has been employed in curing various forms of tuberculosis, and old, infected war wounds. Cases of lupus of long duration have been entirely healed within a short time. Old sinuses, dating from years back, have closed quickly; suppurating glands, even tuberculous laryngitis soon responded, as did other affections which had hitherto resisted all treatment.

The Children's Hospital is the first institution in America to hear of and install the method of using the sun rays through a lens of this character. In return for the aid American generosity gives the stricken children of the old countries Brittany has taught us the use of this device which we have reason to believe will relieve the suffering of our own little ones.

HOSPITAL MORALE*

DONALD GUTHRIE, M.D., Surgeon-in-chief, Robert Packer Hospital, Sayre, Pa.

To maintain good hospital morale, it is important to have the closest cooperation between the management of the hospital, the medical staff and the nursing force. The patient should be considered from the psychological standpoint from the time he is admitted until after he leaves the institution. During his entire stay his mental welfare and comfort should receive the same careful consideration as his physical welfare—for the majority of our patients are mentally as well as physically ill. The personnel of the hospital should be chosen with care and the personality of each worker must suit the position he is to fill. Few of us realize how timid and diffident most of our patients are on admission, or how easily they may be hurt by apparent inattention or frightened by their new surroundings. It is so very important to have their reception a cordial and friendly one, for the first impressions they get are often lasting ones. If they can be made to feel a kindly interest in their welfare on their arrival, if they can be waited on promptly by attendants and nurses who have been specially trained, if they can be spared seeing, smelling and hearing things which are objectionable to them, in other words, admitted to a ward filled with only convalescent patients, who are happy and free from pain, the chances are the patient's mind will be robbed of most of its fright and he will be made to feel at home at once. If, on the other hand, he is allowed to sit for a long time without notice or attention, watching those hurry by who have special missions to perform and who are too busy to greet him, he will feel hopelessly alone; or if he is given a bed next to a postoperative case in which the patient is groaning with pain or one in the throes of having gastric lavage, or should he be unfortunate enough to have a couch next to a patient in the typhoid state, it is not difficult to imagine the state of his mind or to blame him for wanting to go back home again. Fright, fear, and timidity are the wrong impressions to inject into his mind at the beginning, if he is to be made a good patient and have a comfortable and quick convalescence, for we all know how the state of mind may retard and upset the convalescence.

The hospital that is equipped with many recovery rooms, small wards and isolation corridors for the postoperative, the very sick, or those in delirious states is indeed fortunate, for the big ward should be made up of the new arrivals and the comfortable convalescents. Our operative cases should not be moved out into the big ward until the patient is free from pain if it can possibly be avoided, no lavages or painful dressings should be done in the ward, nor should a death be allowed to occur in the ward. The surgeon of today dare not hurt his patients to help them later, and, if possible, he should rely on light gas and oxygen anesthesia to remove gauze drains and deep sutures.

Nothing gives me more satisfaction or delight than to walk through a long ward between two rows of happy,

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smiling, contented patients and receive their friendly greetings. Perhaps I do not pay enough attention to hospital etiquette and ceremony in my work. I have seen rounds made where the chief received the same silent respect that only an army officer could hope to get, where patients were silenced by rigid commands and nurses were punished for the slightest breach. I have been in other hospitals where all the convalescents arose and stood in attention at the foot of the beds while the chief was about, but there was a tense atmosphere about these wards and I could imagine I heard the sighs of relief when we departed. Singing, music, or laughter never upset me when I go into my wards. I do not believe we are obliged to have our patients fear us in order to get and hold their respect.

While on the subject of the ward, just a word about the "kicker." We all have them and we all know how fatal they are to good morale. If one is found by a pupil nurse, he should be reported at once to the nurse in charge and his complaint investigated. If the complaint is just it should be remedied at once; if there is no foundation for it and he is just kicking because it is his nature and he cannot help it, we make a well-organized drive at him—pupils, nurses in charge, the directress, the intern, the members of the staff, everyone who comes in contact with this patient tries to disarm him and have him succumb to kind attention. If he cannot be transformed into a good patient he is moved out of the ward.

The drink of water and the bed pan should receive our most careful attention! How often we hear, "I lay all night begging for a drink of water," or "I called for a bed pan for just one hour and when I did get it, the nurse went away and forgot me and I lay on it for hours!" I sometimes wish I could have a drinking fountain at every bed and enough nurses on night duty to wait on only five patients, each nurse armed with five bed pans. A few minutes' wait in the dark seems a long time, if the call should be urgent, and our nurses should be trained to wait on these patients promptly and give them every attention.

Too much care and system cannot be taken in listing and caring for the patients' clothing and valuables. How often a man, who has convalesced from a midnight operation for strangulated hernia or perforated ulcer, really a life-saving measure, forgets all about what has been done for him in his rage over the loss of his hat, or a family who, after weeks of anxiety during a long drawn out convalescence of their child, who has had a ruptured appendix with peritonitis, complain bitterly and perhaps threaten suit because of the loss of a feather pillow the boy had on the stretcher on which he was transported. After I have listened to their tirades and been upset and hurt by their ingratitude, I have had the satisfaction in having some of these patients write me after they have arrived home that in their hurry to get the train the hat was left at home or the pillow at the station; but it all emphasizes how very important it is to give attention to every detail of the patient's admission to the hospital.

Good hospital morale demands loyalty on the part of the nursing force and the medical staff to the chief on duty. Dissatisfaction on the part of the interns is extremely contagious and spreads quickly from the training school to the patients. I believe if we were to give our interns more consideration and attention, if we were to go over our cases more carefully with them, and ask them more often for their opinions and suggestion, we could make cheerful co-workers of them instead of dissatisfied critics. They should be taught to receive their patients with every consideration and respect, and to care for them tenderly, regardless of their walk in life. Their good work should be rewarded by increasing our confidence in them. The directress should not criticize the chief before the interns or the interns criticize him before the pupil nurses, for pupils soon impart the true state of affairs to the patient.

The nurse should be taught to apply the Golden Rule to her work at all times. She should imagine herself or some member of her family in the condition of the patient she is caring for; she should be warned that, if a patient has an unreasonable, impatient nature in health, these characteristics will be greatly exaggerated during a period of suffering, and she should learn to discount them. She should be shown that a smile wins out and that it will be her best asset if it is properly backed up by a genuine interest in her patients and her work. In caring for those who are suffering she should give her efforts willingly, promptly, and tenderly, and should never let a patient feel she is giving aid because she is obliged by the rules to give it.

I do not know of a bigger factor to promote good hospital morale than a corps of efficient, loyal, well-trained nurses, who love their work and who look on it as an art and not as a trade. Their tender care of the patient during his suffering leaves a lasting impression in his mind, and their well-chosen suggestion during the convalescent period is of great and lasting benefit.

You are all familiar with Cannon's work, "The Effect of Emotions Upon Bodily Secretions." We have all seen a convalescence retarded and upset by fear, worry, doubt and anxiety, and have all seen a change for the better in the patient's condition as the mental attitude is changed by suggestion.

Good food, well cooked, served hot in an attractive way is a great asset to the hospital. No convalescent should be allowed to be hungry if there is no reason why the diet should be restricted. It is better to apply economy to everything else in the hospital rather than to the table. The food should be the best that can be bought and there should always be enough for everybody. It should be served in dainty, tempting portions, and not in great bulk. A flower on the tray, a delicacy out of season will often do much to please the patient's mind and increase the flow of digestive juices.

The surgical or medical chief should examine all patients when they are ready to leave the hospital. At this time the patient's disease or operation should be explained to him in detail, all final instructions for his after-care should be carefully given him, besides telling him that his home physician will be written to about his case. This gives him a sense of security at home and the request that he write back a report of himself from time to time is met with delight, for he feels that the interest shown in him will not come to an end when he leaves.

One word about the anesthetists and the operating room team. If our anesthetics are given skillfully there will be little fright, little excitement, little nausea or vomiting. The patient will recover in a quiet way, not screaming, struggling, and vomiting, for the subconscious mind goes to sleep last but is the first to wake. A successful anesthetist must be a skilled psychologist. The team should be organized on psychological lines and it must handle the patient before the operation in the operating room and during his postoperative course in a skillful way.

The public should be treated with every consideration by the hospital. Information about patients should be given cheerfully, promptly, and correctly at all times. The telephone girls should be taught to smile over the

wire and the attendant at the door should be a skilled diplomat. It is so important to have the friends and family of the patient feel that the hospital is anxious to serve them in a kindly way as well as the patient. For this reason all commanding signs such as "Silence," "No Noise," "Walk Gently," "Talk Softly," "Touch Nothing," do more harm than good, for they give the public the wrong impression. There is no warmth in such commands.

During times of great anxiety all visiting rules are best suspended. The families of the very ill should be allowed to stay with the patient, to spend the night if necessary, to be served hot food during the night, and to have everything done for their comfort. This is extra work, to be sure, but the hospital loses nothing by such acts of kindness.

The business office should be very careful in its treatment of a sorrowing family. I believe it is best not to settle up affairs immediately after a death, unless it is the earnest request of the family that it should be done, but to wait for a time before sending statements. This is not good business, I know, but it is not a bad policy.

Those of you who belong to the visiting staff of hospitals need not give many of these points consideration, for any blame or criticism on the part of your patients can be passed on to the hospital management; but those of you who run hospitals know the importance of giving every small detail of the patient's stay in the hospital your best attention, for his criticisms react on you personally.

If our hospitals could be robbed of their cold institutional atmosphere by little touches of human kindness, if the patients were treated more as individuals and less as cases, if management and the nursing force would cooperate better with the staff in planning for the patient's welfare, I am satisfied there would be much less criticism.

Maeterlinck says, "If the bee colony is to survive through the long winter the spirit in the hive must be good." The spirit among the workers in our hospitals must be the best if we are going to get and maintain good hospital morale.

MUSIC INTRODUCED AS THERAPEUTIC AID IN NEW YORK HOSPITALS

The therapeutic value of music for certain forms and degrees of illness has not been sufficiently appreciated in our public hospitals. The New York City Visiting Committee, which especially interests itself in the welfare of the patients in the municipal hospitals, has long felt that the mental condition of the patients was a most important factor in their recovery. What is going on in the minds of all those men and women lying in their cots or sitting day after day day by their neat white beds? What will help them get a fresh grip on life as their strength returns, or what will cheer them a little as they feel it ebbing? Several years ago the committee helped to organize occupational therapy, and through its secretary was also able to arrange for much music in the wards of the hospitals and almshouses. Miss Mary Weare, a young southern musician, especially interested herself in the therapeutic side of the work. It was delightful to go into a long grey ward and hear all the patients singing the old songs that meant so much to them.

Then the war came on and the Music League for War Service interested many musicians in the military hospitals. Indeed so many artists offered their services that later when the armistice was signed it seemed that the time had come to arrange some regular and permanent means of providing music for our public hospitals.

Shortly before Christmas, 1919, Miss Taber interested some of her friends in helping her to get Christmas music for as many hospitals as might be reached. Mrs. Francis Rogers, who was associated with the Amateur Concert Club of New York, which for many years has furnished entertainments for hospitals, settlements and homes, cooperated with Miss Taber in this idea, and they found it was only necessary to ask musicians to lend their talent to have them consent with the utmost willingness and generosity.

Mr. Arthur Sewall Hyde, organist of St. Bartholomew's Church, who has recently died, took about forty of his choir to Bellevue Hospital, and they marched slowly through the wards singing Christmas carols. Many of the patients had not heard music for a long time and were deeply touched by this beautiful Christmas message.

Mr. Miles Farrow, of the Cathedral of St. John the Divine, took about fourteen of his boys over to Blackwell's Island, and they also went through the wards of the Metropolitan Hospital singing their Christmas carols, and later went to the City Home on the same island, where they gave a concert in the large halls for the men and women who are unfortunate enough to have no homes of their own and to be forced to live in this Institution at the city's expense. As the notes of "Holy Night" sung by those sweet clear voices died away one of the patients whispered: "I thought the angels had come."

Music was also given in the City Hospital on the same island, by Miss Mildred Dilling, harpist, and Miss Lhevinne, violinist, who went from ward to ward and brought much comfort and joy. A most interesting result of the music was the development of personality among the patients. A former well known cellist who had been a chronic patient for many years spoke to the musicians of his beloved art. An expert violin-maker was found in the neurological wards. It is for the nervous cases that music is most helpful.

Mr. Bruno Huhn, the organist at Dr. Hilles's Church in Brooklyn, was ready to go with his quartette to one of the big municipal hospitals in Brooklyn, but it was temporarily quarantined on account of the influenza.

Music was also furnished at Sea View Hospital on Staten Island.

Primarily as a result of the success of these concerts and particularly as the outcome of a long cherished plan, it has been decided to put music in the City Hospitals on a permanent basis. The work is to be taken over by Miss Mabel R. Beardsley of the Community Service, 15 East 40th St., and with the cooperation of Miss Marion R. Taber, Mrs. Francis Rogers, and Miss Marie Kieckhoefer of the Music League of America, Miss Beardsley is to arrange to give concerts at stated intervals in all the hospitals that may be reached.

A large list of musicians, mostly professionals, have responded enthusiastically to the appeals that were sent to them to cooperate in this work, and have placed themselves "on call"—in fact, they say that they are only too glad to have the chance of using their art to bring the kind of pleasure that it alone can bring to those who are sick in mind and body.

The head physicians of the hospitals are beginning to realize the great necessity for this kind of mental refreshment to break into the monotony of hospital life, and welcome this chance to help their patients. The enthusiasm which was shown for all the war sick and wounded should not be allowed to wane, for the civilian need is quite as great.

It is intended that this institution of music in the hospitals shall be permanent.

NURSING AND THE HOSPITAL

Conducted by CAROLYN E. GRAY, R.N.,
Secretary, New York State Board of Nurse Examiners,
132 E. 45th Street, New York City

MAKING STUDENTS' PRACTICAL WORK MORE PROFITABLE EDUCATIONALLY*

BY ELIZABETH C. BURGESS, R.N., Inspector of Nurse Training Schools, N. Y.

There is food for thought for both executives and educators in this topic, chosen by the program committee as the subject of a paper, and I believe it would be of the greatest value if we could have from those present concrete examples of what is being done in the various schools in an effort to promote the educational value of the student's practical work experience.

What I have to say is but suggestive, and by no means new. I hope, however, it may serve to bring the subject more clearly before us and promote discussion.

Surely no experience holds greater educational value for the student nurse than that of her practical service. At the same time there is no experience in any system of education which carries a greater opportunity for the exploitation of the worker than this same experience under the name of practical training. But if we are to continue, as we have begun during the past few years, to speak of "nursing education" in place of "nurses' training," much greater attention must be given to this practical part of the experience, which even in our most advanced schools occupies a minimum of 90 per cent of the time of the student.

We have, what any other school may well envy, the opportunity for practice and adaptation of the school's instruction to a real situation. We do not have to wait for the opportunity. It is always available for the youngest students. The fact that the service at once meets a real need, and that no artificial situation is created, is an advantage which perhaps we scarcely appreciate until we think of what our loss would be without it.

Advantages of Practical Service

The practical experience of the student is profitable in many ways:

1. It is valuable to the patient, due to the actual nursing care given.

2. To the hospital, as it provides continued nursing service of the most desirable type.

3. To the student:

(a) Since it provides opportunity for drill in the various nursing procedures.

(b) It makes possible familiarity with the clinical aspects of disease.

(c) It provides the needed opportunity for growth.

No hospital should conduct a school for nurses which is not reasonably certain of providing the first two mentioned opportunities for its students in ward experience, *i. e.*, drill in nursing procedures and familiarity with the clinical aspects of disease; yet so meager may be the experience used, that student after student is graduated unfamiliar with certain procedures, except as they have been demonstrated, or possibly only discussed, in the class room. The greatest amount of vigilence is needed even when clinical material is plentiful, that each student may receive the experience in carrying out in actual practice procedures which she is expected to be proficient in. Ask recent graduates their method and the technic employed in certain procedures and too frequently you find they have no method and may never have been called upon to practice the procedure. This is testified to by the members of boards of nurse examiners who hold the examinations in practical nursing. When we say that the practical experience of the student makes possible a familiarity with the clinical aspects of disease, again we must admit that it is not always the case, although this situation is without doubt much better than it was ten to fifteen years ago, state resigstration having been of great assistance. Could a record be made of the experience obtained during the period of training of the group here today, we would without doubt bring to light a one sided experience in very many cases.

Examples of the following nature abound:—

Completion of the course without training in the children's wards;—(and in three-fourths of these cases there was no children's wards to go to); no diet kitchen experience; ten to twelve months spent in the operating room; one month only in the care of medical patients; one year spent in special duty with private patients; three-quarters of the course spent as a head nurse in charge of other students. One of the most important services has been gotten by the great majority of nurses through theory only, namely, contagion; and few graduates outside of those whose experience has been entirely in the State Hospital are familiar with the nursing care of mental and nervous diseases.

The past two years has demonstrated very clearly the graduate nurses' lack of practical experience in both of the latter services. The military hospital both at home and abroad have furnished the first practical experience in both the care of acute infectious diseases and in mental nursing for hundreds of nurses. The dislike which is often encountered toward caring for obstetrical patients is largely due to inexperience on the part of the nurse, who knows enough to make her hesitate before the possible complications with which she is remotely familiar.

The third item, provision for the needed opportunity for growth, is that to which the title of this paper more directly applies, and in a sense it is inclusive of the two previous.

*Paper read at the annual meeting of the National League for Nursing Education, Chicago, Ill., 1919.

Professor Dewey calls the educative process a process of growth, and while we may secure in nursing technic and methods by constant drill, and a familiarity with disease through contact with it, if this growth and development which changes the novice into the intelligent, responsible and well poised student who grasps the possibilities of her profession, has not taken place, the most important value of the practical work experience has been lost.

There are many points in the practical work experience provided for our students which may well warrant criticism like that which Helen Marot in her "Creative Impulse in Industry" applies to the factory worker, who, when controlled under so called Scientific Management, is interested in a reward without desire or interest in the work experience. She says: "As the method of doing the work is prescribed in every detail and their only requirement under scientific management is to follow directions with accuracy, they are trained to do their tasks as the children in school are trained. They are trained in routine and to do each task as it is given. This is not education, it is training to do tricks. The worker does not take over what can be called experience from one task to another. He forms certain motor habits called skill. The acquirement of this skill is robbed of its educational value."

In the majority of our schools the most interested group are the probationers. They are the one the instructors like best to teach, and we do not have to search far for the reason. Is it not because of the freshness, alertness and curiosity which marks their advent into what is to them an almost unknown field? At the end of the preliminary course each one invariably tells you that in no previous four or six months of her life has she learned so much. This does not refer entirely to the theoretical course; it is largely due to the educative process experienced in the practical service she has had. The opportunities in the practical work experience are much greater in the months following this introduction to the work, but the abuses of the experience are testified to by dampened enthusiasm on the nurses' part. The light of achievement has been dimmed.

Factors Robbing Practical Experience of Its Value

Some of the factors which rob the experience of its value are:

1. Long hours of service and consequent mental and physical weariness.
2. Lack of relaxation and opportunity for refreshment.
3. The constant practice of procedures long past the time necessary for the perfection of technic.
4. Lack of time to make the connection between class work and practice.
5. The impossibility of carrying out the procedure on the ward as it was demonstrated in the class room, this being due either to lack of proper equipment or lack of time.
6. Service in one department extending long beyond the time when there is either new material or opportunity for further mental growth.
7. Lack of stimulation arising either from entire lack of criticism, a passive attitude on the part of the head nurse, or from a constant fault finding.
8. The requirement of the student of routine work which could as well be performed by others, and which after she has become familiar with it ceases to have an educational value for her. I refer to duties which may well be delegated to maids or other class of workers, such as the cleaning of wards, private rooms and service rooms, folding linen, cleaning large numbers of instruments, making surgical dressings, etc.
9. Another practice frequently found in the larger institutions which takes from the value of the experience and emphasizes routine, is the division of the duties in the ward so that certain things are done by certain individuals wholly. A young nurse just going to the wards cleans all the beds, and does all the dusting on one side of the ward, gives all the baths, etc., on her side, while another gives all the treatments, etc.

These are but some of the practices which actually militate against the educational value of the practical experience. They could readily be multiplied by a study of the procedure and ward routine of almost any hospital.

Without doubt what the student gets out of her experience depends very largely on what she puts into it; but it is incumbent upon the schools to lead the way. Students with meagre educational preparation will go little further than to acquire skill in the technical procedures; the bigger opportunities are not evident to them. It requires an enquiring mind, a live interest and intelligent appreciation of situations and opportunities to grasp the real value of the experience.

The value of the practical experience should be emphasized in every possible way. It should be presented as of foremost value in her course. Instruction in the science should be presented as fundamental and contributory to the final accomplishment of better care of the patient rather than made an end in itself. The test of greatest importance should be in the major subject of nursing. Students should be stimulated by their daily experience, not dulled by its routine. They should never be regarded or allowed to think of themselves as a part of the machinery of the hospital.

Conditions Contributing to Value of Practical Experience

Some of the conditions which I believe will contribute toward the educational value of the practical work experience are as follows:

1. The hours of practical experience daily should not exceed eight.
2. Instruction should always proceed from the simple to the more difficult duties.
3. Each student in addition to certain stated responsibilities should have a certain number of patients for whom she is definitely responsible.
4. Head nurses should be chosen not only for their executive ability but as well for their teaching ability.
5. The nurse instructor.

I have come to think that the nurse instructor should give a great deal more attention and time to the teaching of nursing than she does in the majority of schools today. In a recent issue of "*The Journal*" there appears in the want column an item which is typical of what is being asked of the nurse instructor. It reads "Wanted—Competent instructor of nurses for training school of hospital of 120 beds. Must be capable of teaching all subjects in the standard curriculum." Many nurse instructors are expected to be prepared to teach anatomy and physiology, bacteriology, chemistry, materia medica and hygiene; while the teaching of the subject in which she is a specialist, or should be, is assigned to a recent graduate who has had no particular preparation for teaching. The reason for this is partly because the recent graduate is familiar with the most recent technic employed at the hospital. She surely is of great value as an assistant to the instructor in demonstrating procedures, but teaching nursing is a vastly different thing from holding demonstrations.

The nurse instructor needs all the knowledge she can obtain of the sciences, of psychology and pedogogy if she undertakes the teaching of the major subject in the curriculum.

A physician can give valuable instruction in anatomy and physiology; a bacteriologist, in bacteriology; the chemist and physician, chemistry and materia medica; the dietitian, dietetics; all of which contribute to the necessary preparation of the student. The nurse instructor uses this instruction as the background for her teaching. Many lecturers on medical and surgical disease ignore the fact that emphasis should be placed on the nursing. Nursing technic, too, is frequently taught solely as a technical procedure without its reference to disease. We also frequently find two errors in instruction, that of teaching by demonstration, laying all the emphasis on skill in the accomplishment, and that of paying little attention to the practice,—teaching of principles, but leaving the student to acquire a hap-hazard learning of the practices. The instructor should constantly aid the students to make the connection between class instruction and practical service.

6. A well-known method for keeping alive the interest of the student in technical procedures is the requirement that each student check up the various practical procedures as she performs them during her ward service, until the procedure becomes a thoroughly familiar one. Another help is the keeping by each student of a record of the cases she has cared for, and the filing of these records monthly. These cases may also form the basis of class discussion and required reading, together with bedside clinics conducted by the physician and nurse instructor.

7. The arrangement for class instruction in special subjects and service in the departments in conjunction. Example—The instruction in pediatrics and infant feeding should be given when the student is serving in the children's department. As far as possible the instructor should make use of the material in the department. The student at work in the milk room should have opportunity to watch the progress of the babies for whom she is putting up feedings.

In the same manner the obstetrical class work should be accompanied by service in the maternity department; classes in contagious nursing should accompany the service in the contagious department. Classes in nursing in mental and nervous diseases should accompany the psychiatric experience.

When these special services are provided by affiliation this is usually done. When this does happen the practical experience is teeming with educational value, especially if it is directed by the nurse instructor. Her work in the class room is then so closely related to the work that the students invariably make the connections. They are stimulated, interested and alive to the possibilities which the different services hold for them and intensely interested in the results of their efforts.

At the completion of the preliminary course in one of the units of the Army School of Nursing last winter a demonstration was held as an examination in practical nursing. It extended over three days, two hours each evening, and it represented the first three days nursing care of a patient following on abdominal operation. The demonstration room was arranged to represent a small ward. The head nurse's desk was at one end of the room and on it was the nurses' report book, the physician's order book, material for charting, etc., and a clock. I was puzzled at first by the clock, until I discovered that it began by being 7 A. M. and that as the treatments proceeded the clock proclaimed the passing hours of the day until 7 P. M. was reached. There were two beds in the ward. In one there slept peacefully a rosy cheeked "Mrs. Chase," as that well known dummy was called, in the other was a graduate nurse who was a martyr to the cause of the Army School, and who for three evenings played the part of a very sick and helpless post operative patient. One student was the head nurse. She read the night report to the group of nurses who arrived promptly at 7 A. M. Then things began to happen, the kind of things which would naturally happen to a post operative patient. Bed making; filling of hot water bottle; the morning bath; care of the mouth and teeth; brushing the hair; the temperature, pulse and respiration; fluid diet; a Murphy drip; the measuring of urine. Various symptoms occurred for which an imaginary doctor prescribed and turpentine stupes, a flaxseed poultice and a stimulating enema were called for. Finally the patient had a hemorrhage which called for the elevation of the bed. As the day passed the patient got some sleep, according to the clock, and finally was made comfortable for the night, grateful to the day nurses and happy to see the night nurse who reported at 7 P. M.

The student representing the head nurse was encouraged to question the different members to the extent of her ability. She also assisted with the patient when two nurses were needed and she kept the chart. The questioning and the realistic acting on the part of the patient made the demonstration full of interest to both the students and those looking on.

As an examination in nursing procedures it was probably not as valuable as the usual method of holding practical examinations, but it made the connection at the very beginning of the nursing course between the practical procedures and a sick patient. And it began early in the students' career to bring into the practical experience something of definite educational value.

OBSTETRIC TEACHING HOSPITALS IN LONDON

By all means let the small hospitals which can do so enlarge their existing accommodation for maternity cases and at the same time take steps to improve their teaching, which at present is admittedly defective; but the total number of beds which these hospitals will be able to set aside for midwifery will be quite inadequate to the demand. It would be suicidal for all the medical schools of London to try to establish maternity wards with a sufficient number of beds; this should be attempted by not more than three or four schools, and the students of the other schools should obtain their clinical instruction either at one of the schools furnished with a maternity ward, or, better, at one of the new and large midwifery institutions, of which at least half a dozen will be required in the different areas of London.—Lancet.

Truly, it is hard to be censorious. We have a first duty of understanding. And the life of the tenement-dweller is not to be understood or improved until we make common cause with his essential humanness. That he is the victim of an overwhelming repression is the central fact of his emotional life.—Ordway Tead.

The only competition worthy of a wise man is with himself.—Mrs. Jameson.

Wisdom is to the soul what health is to the body.—Rochefoucauld.

MEETINGS, CONVENTIONS AND CONFERENCES

SEVENTY-FIRST ANNUAL SESSION OF THE AMERICAN MEDICAL ASSOCIATION

The seventy-first annual session of the American Medical Association was held at New Orleans, Louisiana, April 26th to 30th, 1920. To accommodate the great crowd of physicians and surgeons who attended this convention, as well as the meetings of many of the allied associations, the hotel accommodations of New Orleans were taxed to the utmost limit, for the interest in the scientific discussions, combined with the growing interest in the health and medical problems of the South, served as a two-fold magnet to draw an unexpected large gathering.

Surgeon-General Wm. C. Braisted, President American Medical Association.

When Dr. Alexander Lambert, the president of the Association, called the meeting of the general session to order on Tuesday evening, April 27th, the Schriners' Temple was filled to overflowing. The most Rev. J. W. Shaw, Archbishop of New Orleans, pronounced the invocation and addresses of welcome were delivered by the Hon. Mr. Riggs on behalf of Mayor Behrman, of the City of New Orleans, Honorable John M. Parker, the governor elect of Louisiana, and Dr. Homer Dupuy, president of the Louisiana State Medical Society. Then followed the introduction and installation of president elect William C. Braisted, United States Navy. In his address Surgeon General Braisted dwelt upon the education of the public in health matters, calling attention to the fact that after the dissipation of life incident to all great wars men inevitably turn to the importance of saving and prolonging it, and healthgiving measures incite at least a temporary interest, and warned his hearers that they would miss a great opportunity if they did not at this time make every endeavor to press home the great self-evident truths of health and long life as they affect national prosperity and race permanence. He contended that the nation's health is a national concern; that it underlies all industrial and business effort, and that it is the fundamental element in successful competition with rival nations, whether under the prolonged strain of commercial contests or the sudden and imperious demands of armed conflict. Giving full credit to the splendid results accomplished by the various agencies at work in the health field, he asserted nevertheless that their combined efforts had not been adequate to the task, and that the campaign for sound health, if it is to be successful, must be one of concerted measures, nation-wide in extent and unflaggingly prosecuted. He pleaded for an abandonment of all halfway measures and conventional methods and for the adoption of a radical, even revolutionary, program which at the same time would be perfectly feasible if undertaken on a scale commensurate with the colossal results desired. To this end he made a forceful plea for the establishment of a national department of health at Washington which, without usurping the activities of the various state and national agencies at work in the health field, would nevertheless work toward a coordinated effort for improving the public health, and make it continuous and progressive instead of desultory and sporadic. While opposed to the tendency to place every public and semi-public enterprise on the government, Dr. Braisted declared himself unqualifiedly in favor of a national department of health, with a cabinet officer at its head, which shall by its very creation give a great object-lesson to the country and shall correlate and greatly expand all the efforts now put forth for the improvement of the race, the prolonging of life, and the full development of physical capacity for work and production.

Dr. Braisted made a strong plea for the teaching of hygiene in primary schools and expressed the conviction that those interested in promoting the public health have been guilty of a basic error in devoting an inordinate amount of time and attention to the health of the adult already chained by lifelong habits. As childhood is recognized as the time to acquire certain qualities indispensable to future development and ultimate success, he proposes that we get to the root of the matter, the foundation of the child's education, in order that later we may have lawmakers and lawabiding citizens who will put healthy living ahead of every other kind of living. "How," Dr. Braisted asks, "can we expect the lad or maiden who has for five, ten or fifteen years been goaded to study grammar, mathematics, and languages, on whom there has been exerted insistent pressure to acquire mental attainments, to be easily persuaded later on that a subject kept in the background or displaced in favor of something else, is the one of paramount importance! We cannot expect the youth to believe that hygiene, physiology and health are matters of primary importance and that their teachers really esteem them such when everything else has gone ahead of these subjects." To correct this situation Dr. Braisted would have our public schools become the health centers of their respective communities.

Touching upon the question of the medical curriculum Dr. Braisted felt that in the main the curriculum of our leading medical colleges was satisfactory, judged by the results, but that it is a well recognized fact, in the first place, that all recent graduates and many old practitioners are profoundly ignorant of drugs and how to prescribe them so as to get the desired results, and, in the second place, that hygiene and sanitation are not given sufficient prominence in our medical courses.

Dwelling upon the kind of men wanted in the medical profession, Dr. Braisted said, "We want the men who take up medicine in America to be big men, big in heart, big in brain, blessed with vigorous health. The possession of a store of facts is nothing compared with native ability and sterling integrity of character. . . . The medical profession must agitate in season and out of season for a high standard of physical capacity as a basis for intellectual achievement and for normal conduct. It must show its appreciation of proper values by using every means to divert from its ranks those who have failed to demonstrate the possession of principle as well as of mental proficiency."

The report of the council on health and public instruction, submitted by its chairman, Dr. Victor C. Vaughan, to the house of delegates, contained one or two matters of interest to hospitals. "There is a real demand," runs the report, "for medical graduates to serve as interns in hospitals, but this demand could not be met even if the number of medical colleges and the number of graduates annually should be doubled or trebled. The number of hospitals seeking interns has been tremendously increased and new hospitals are being rapidly erected. Last year 1,126 hospitals with a total of 270,000 beds were all seeking interns. Counting that one intern is needed for every 30 beds, these hospitals would require 9,000 interns each year, more than three times the number of medical graduates in 1919. No such number of graduates is necessary to meet the normal demand for physicians. The intern problem requires some other remedy." The report suggests (a) that internship might be extended to two years, by which the annual output of graduates would supply twice as many hospitals; (b) the hospitals might pay salaries to recent graduates, inducing them to remain for several years as resident physician or surgeon; (c) hospital assistants or nurses might be trained to do much of the work now devolving upon the intern; (d) the situation is relieved in some hospitals by the employment of stenographers who at the time patients are examined, take down histories from dictation by the members of the attending staff. Meanwhile the number of hospitals is now so large that only those will be able to secure interns which are willing to furnish a valuable clinical training.

Another section of this report is devoted to consideration of measures of importance in medical education and dwells upon the question of improving hospital service, which it regards as one of the most important problems now confronting the medical profession. It dwells upon the hospital work thus far done by the American Medical Association, the attitude of hospitals toward this work, and the growth of its service, and urges its expansion.

The address of Dr. Alexander Lambert, the president of the Association, delivered to the house of delegates, dwelt upon the slowly developing realization of the influence and value of hospitals as institutions not only for the care and treatment of the sick but also for the education of physicians. He advocated the appointment of a standing committee on hospitals to cooperate with the other agencies represented in the American Conference on Hospital Service; in fact, he recommended that the house of delegates create a council on hospitals and amend the by-laws to this effect.

The various sections of the Association carried on the usual scientific discussions of which those of the section on preventive medicine and public health are of greatest interest to the hospital field. Among these papers we may call particular attention to the address of the chairman, Dr. James A. Hayne, of Columbia, S. C., on the "Rights of the Child," the address of Mr. Edwin A. Peterson of Washington, D. C., on "What the American Red Cross can Contribute to the General Health Program," and the paper by Dr. Lloyd Noland, Birmingham, Ala., on the "Work of the Department of Health of the Tennessee Coal, Iron & Railroad Company." Among the other subjects treated in this section were: "Desirable Trend of National Health Policies," "The Training of Industrial Physicians," "The Difficulties of Public Health Administration," and "The Necessity for the Reporting of Venereal Diseases by Physicians."

The scientific exhibit was located in the Josephine Hutchinson Memorial Building of the Tulane University, and included, among others, exhibits of the medical department of the United States Army, the Louisiana State Board of Health, and the American Medical Association.

The conference was not without its lighter side. There was the customary president's ball, with a number of tableaux representing medical subjects of interest. The scenery and settings were especially painted and prepared to suit the theme of the carnival. On April 9th a Fête Champètre was given at the city park and during the convention various trips were arranged through the historical and beautiful sections of New Orleans for the visiting ladies. These trips were personally conducted by members of the Louisiana Historical Society. The usual American Medical Golf Association tournament was held at the New Orleans Country Club under the auspices of the local committee.

INDUSTRIAL PHYSICIANS MEET

The annual convention of the American Association of Industrial Physicians and Surgeons held at New Orleans April 26 and 27, 1920, was attended by a small but enthusiastic body of industrial physicians and surgeons from all parts of the country. Those who took the long trip were well repaid by the excellence of the program and the practical nature of the discussions.

The address of the president, Dr. Harry E. Mock, was a very practical vision of the future of industrial medicine. "Wound Infection in Industry" was succinctly treated by Dr. Drury Hinton, of E. I. du Pont de Nemours & Co. Dr. J. A. Watkins of the Lunkenheimer Company, Cincinnati, reviewed the progress of training for the industrial physician. Dr. Edward Martin, commissioner, Department of Health of Pennsylvania, outlined the very practical plans of the Pennsylvania Department of Health in the treatment of venereal disease. A scientific contribution to the subject of industrial physiology was given by Dr. A. H. Ryan of the Scovil Manufacturing Company, who dealt with the subject of fatigue and efficiency tests.

The subjects which excited the most earnest discussions were those of the round tables on "The Problems of First Aid," "Standardized Surgical Methods in Industry," and "The Problem of Compensation for Sickness." The first brought a review of the actual plans in operation in industries in handling and treating first aid cases. The second brought out the fact that standardized methods are out of the question but that minimum standards may be established on which there could be an agreement.

The third gave a résumé of the argument for and against health insurance as proposed in this country. The presence of Dr. Norman Walker of Scotland, who spoke favorably of the English experience, was of special interest.

In addition to the program of the Association the subject of industrial medicine was treated in several contributions to the Section on Preventive Medicine and Public Health of the American Medical Association.

The Association of Industrial Physicians and Surgeons went on record for an enlarged program for the promotion of industrial medicine. An aggressive policy was agreed upon to promote membership and increase the service of the Association to its members. The dues were increased for this purpose, and optimism was expressed on all hands in regard to the work to be done. Officers were elected as follows: Dr. Otto P. Geier, of the Cincinnati Milling Machine Co., was elected president; Dr. I. R. Crowder, of the Pullman Co., Chicago, Ill., vice-president; Dr. W. Irving Clark, of the Norton Co., Worcester, Mass., second vice-president; and Dr. Francis D. Patterson, Department of Labor and Industry, Pennsylvania, secretary-treasurer.

NATIONAL TUBERCULOSIS ASSOCIATION MEETS

The annual meeting of the National Tuberculosis Association held at St. Louis, Mo., April 22 to 24, was attended by over seven hundred delegates from all parts of the United States, from Canada, and from the Philippines. The history of the fifteen years of activity of the organization is one of rapid growth, broadened scope of endeavor, and increased success in achievement. The movement was launched by a few earnest philanthropists, and in its first year engaged the support of various organizations whose budgets aggregated not more than $100,000. With the present large association enrollment, the executive office anticipates the expending of more than $4,000,000 in carrying on anti-tuberculosis work during 1920. Among important tendencies of the movement made manifest at the convention were the increasing responsibility, activity, and power of the state association, the significant growth of the Public Health Crusade, the standardization movement as applied to the classification and grading of tuberculosis sanitoria, and the movement to evaluate and coordinate the existing methods of dealing with tuberculosis.

In the presidential address, Dr. Victor C. Vaughan laid emphasis upon the increased morbidity as contrasted with the decreased mortality, and upon the necessity of bringing about migration from the cities to the country. As an aid to the back-to-land movement, Dr. Vaughan urged the improvement of housing conditions, especially in the rural districts.

Nursing, medical, and sociological sectional meetings, as well as Advisory Council meetings were held, at which subjects of vital interest to the respective groups and to the association as a whole, were discussed. Nursing methods and programs, occupational therapy for tuberculous cases, administrative problems in public health nursing with reference to the function of the national, state, and local organizations, in relation to the development of programs, were among the topics emphasized in the Nursing and Advisory Council meetings. The effect of influenze upon tuberculosis, heliotherapy, the Negro problem in the clinical aspects, the etiology of tuberculosis, and the use of tuberculin in various forms, were treated at the medical conferences. Tuberculosis as a health program, the tuberculous soldier, and the problems of industrial tuberculosis in their relation to business and to after-care of patients, the problem of tuberculosis in the Philippines, and the Modern Health Crusade, were topics featured in the sociological meetings.

Resolutions of national significance were drawn up by the Committee on Resolutions consisting of Dr. Gerald B. Webb, chairman, Dr. S. A. Knopf, Dr. Josephine Milligan, Dr. W. L. Dunn, and Dr. Phillip King Brown, and include the following: That animal experimentation conducted under proper supervision be continued to further the development of research in tuberculosis, and that restrictive legislation be disapproved; that the Association's deep appreciation of the great work of Sir William Osler be recorded and an expression of profound sympathy be sent to Lady Osler in her bereavement; that the president appoint a committee to investigate and to study the industrial colony project, in order that a proper course for the organization of such colonies and communities be ascertained; that the school authorities adopt plans for the provision of a sufficient number of open window rooms in every new school building to be erected in the United States; that legislation be initiated by the federal government to deal with the problem of the tuberculous soldier, involving the increase of salaries for the personnel of the United States Public Health Service to permit the securing and training of competent medical officers, immediate appropriations for the construction of a large number of sanitoria and new units at Public Health Service hospitals in order to provide ample accommodations for hospital cases of tuberculosis, and provision for the training and employment of arrested tuberculous beneficiaries in such occupations as will conduce to their continued health.

The officers elected were the following: President, Dr. Gerald B. Webb, Colorado Springs, Colo.; Honorary Vice-Presidents, General William C. Gorgas, Washington, D. C., and Colonel George E. Bushnell, Concord, Mass.; Vice-Presidents, Dr. Phillip King Brown, San Francisco, Cal., and Dr. James Alexander Miller, New York City, N. Y.; Secretary, Dr. George M. Kober, Washington, D. C.; Treasurer, Mr. Henry B. Platt, New York City; Clerk, Mr. Wadleigh B. Drummond, Portland, Me.; Executive Committee: Dr. H. Kennan Dunham, Cincinnati, O.; Dr. W. L. Dunn, Ashville, N. C.; Miss Edna L. Foley, Chicago, Ill.; Dr. Alfred Henry, Indianapolis, Ind.; Dr. Walter R. Steiner, Hartford, Conn.; Dr. Victor C. Vaughan, Ann Arbor, Mich.; Dr. William Charles White, Pittsburgh, Pa. The new directors are as follows: Mr. Henry B. Platt, New York City; Dr. Livington Farrand, Washington, D. C.; Dr. James Alexander Miller, New York City; Mr. Homer Folks, New York City; Dr. William N. Anderson, Omaha, Nebr.; Prof. Reed Smith, Columbia, S. C.; Dr. A. C. Bachmeyer, Cincinnati, O.; Mr. J. V. A. Smith, Seattle, Wash.; Dr. Allen H. Williams, Phoenix, Ariz.; Mr. H. R. Cunningham, Helena, Mont.; Dr. David R. Lyman, Wallingford, Conn., and Dr. George Dock, St. Louis, Mo.

SANATORIUM ASSOCIATION ADOPTS STANDARDIZATION REPORT

At the fifteenth annual meeting of the American Sanatorium Association held in St. Louis, Mo., April 22, in conjunction with the National Tuberculosis Association, the final report of the Committee on Standardization of Sanatoriums, recently completed, was adopted and submitted to the National Tuberculosis Association for distribution among all the sanatoriums of the country. The purpose of the standardization movement was defined as the establishing of minimum standard requirements and the grading of the various sanatoriums to aid both the

public in forming authoritative opinions concerning the efficiency of the institutions, and the sanatoriums in improving their services through knowledge of what constitutes standard practices, and of what development and improvement are taking place in other institutions. The plan is to classify sanatoriums—to set standards, rather than to standardize, and with this aim in view, fairly high, but reasonable goals of attainment have been set, which are calculated to stimulate general improvement of service.

The rating schedules which will be sent to all sanatoriums, have been adapted to include all classes of tuberculosis institutions treating all forms of tuberculosis. A scheme for rating boarding houses for tuberculous cases has been developed. Ratings and inspections, when necessary, will be made by a representative commission of the National Tuberculosis Association and not by an individual. The first tabulation will be made from unchecked reports returned by the institutions. The reports will not be published, but later, annual standardizations based on such returns, checked as may be necessary to substantiate claims, will be published in the *Journal of Outdoor Life*.

The scheme of rating as worked by the committee is as follows:

Standardization shall be based on the following factors: Location, etc., plant and equipment, administration, and medical service.

There shall be prepared a schedule or schedules under each factor (as shown on rating blanks), which shall include all items appropriate to it in the judgment of the rating commission, subject to the restriction that items shall, as far as possible, be of such a character that establishment of claims thereunder may be based on question of fact, and as little as possible left to the discretion or opinion of those charged with the duty of inspection. The items in these schedules shall be divided into three classes, "C," "B," and "A."

"C"—Those deemed essential for admission to standardization.

"B"—Additional items which add to the institution's usefulness.

"A"—Such items of superiority as deserve recognition.

Those falling below the minimum requirements as defined "C" herein, shall be rated "not qualified," or by some similar term. All others shall be rated into classes "A," "B," and "C," without reference to their size or form of government.

Each schedule shall be checked, and the classification of the institution (A, B, or C) as regards it established.

To claim "A" in any schedule, an institution must have all the qualifications in that class; likewise for "B" and "C."

Factors shall be assigned weights.

Classes of items shown in schedules as "A," "B" and "C" columns shall be assigned values.

Factor ratings shall be the percentages which the schedule values are of the factor weights.

Final ratings (classification) shall be the sum of the factor ratings.

NOTE—Under each of the factors, Location, etc., and Plant and Equipment, there is but one schedule. Under the factor, Administration, there are two of equal value, the average of these two to be used in working out the percentage. Under the factor, Medical, are seven schedules which are also weighted as shown.

Accompanying the general statement of the scheme of rating are the rating blanks covering all the items to be considered as factors in the standardization of sanatoriums.

The American Sanatorium Association elected the following officers: President, Dr. Lawranson Brown, Saranac Lake, N. Y.; vice-president, Dr. A. T. Laird, Duluth, Minn.; secretary-treasurer, Dr. E. S. McSweeney, New York City, N. Y.

SOCIAL WORKERS MEET IN NEW ORLEANS

The National Conference of Social Work, held in New Orleans April 21, 22, 1920, devoted no small amount of time to the discussion of the various aspects of the public health campaign. The section on health under the chairmanship of Mr. George J. Nelbach, executive secretary of the Committee on Tuberculosis of the New York State Charities Aid Association, held seven section meetings and one general session, where the papers and discussions centered about the following topics: "Team Work in the Public Health Movement," "Recent Gains in State Health Legislation." "The Social Responsibility of the Hospital," "Health Work and the Red Cross,'" "The Next Steps in Public Health Nursing," and "Special Health Problems of the Immigrant."

At Wednesday evening's general session of the conference, which was a joint session of the Health Division with the Division of the Local Community, Mr. Royal Meeker, Commissioner of Statistics, United States Department of Labor, addressed the convention on the "Standards of Living Essential to Health." During the past year Mr. Meeker has been acting as the chairman of the Committee of Specialists in Economics, Sociology, Preventive Medicine and Statistics, appointed by the Division on Health immediately following the conference's annual meeting at Atlantic City last year to study this subject and submit a report. In discussing the topic of "Team Work in the Public Health Movement," Dr. Chaillos Cross of the State Board of Health of Mississippi described the County Model Health Campaigns of Mississippi conducted by the State Board of Health in conjunction with the International Health Commission of the Rockefeller Foundation and the Rockefeller Institute for Medical Research.

At Thursday afternoon's session, Mr. Robert G. Patterson, Akron, Ohio, read a paper on the Hughes Act of Ohio, and its amendments: Lessons to be Drawn from Securing Its Enactment, and Experience Had Thus Far Under Its Administration. The topic of Social Responsibility of the Hospital was covered by two papers, one by Mr. Joseph J. Weber, managing editor of THE MODERN HOSPITAL, Chicago, on the "Role of the Hospital in the Public Health Campaign." The other by Miss Edna G. Henry, president of the American Association of Hospital Social Workers, Indianapolis, on "Bridging the Chasm."

The seventh and final session of this division was given over to several miscellaneous papers of which one of the most interesting was that of Mr. E. G. Routzahn, associate director Department of Surveys and Exhibits, Russell Sage Foundation, on "Selling Health to the People."

The Health Division was not alone in the discussion of public health problems, for they were discussed by speakers in several other divisions, notably in the children's division and the local community division, all going to show that the social workers of the country are thoroughly alive to the health aspects of their work.

Mr. Allen T. Burns, director of Americanization Studies for the Carnegie Foundation, was elected president of the conference for 1921. Mr. Robert W. Kelso, secretary of the State Board of Charities of Mississippi, was elected First Vice-president; Mr. Marcus C. Fagg, Superintendent of the Children's Home Society of Florida, Second Vice-president, and Miss Mary E. Richmond, Director of the Charity Organization Society Division of the Russell Sage

Foundation, Third Vice-president. Dr. Richard Bolt, Baltimore, Maryland, was elected chairman of the Health Section. The new members of the Executive Committee are W. T. Cross, Chicago; Otto W. Davis, Minneapolis; Owen R. Lovejoy, New York; W. J. Norton, Detroit; and Gertrude Vail, Denver. The next annual conference will be held in Milwaukee in June, 1921.

ILLINOIS HOSPITAL ASSOCIATION MEETS IN CHICAGO

At the convention of the Illinois Hospital Association held at the Hotel Sherman, Chicago, April 16, delegates from all over the state gathered to review the work accomplished since the organization of the society in February, 1919, to discuss issues vitally affecting hospital administration, and to formulate a comprehensive program of activities for the ensuing year. The function of the hospital was defined primarily as the caring for the sick, in accordance with the most approved scientific methods, and the organization pledged itself to aid in maintaining the highest standards of hospital efficiency, and to promote the welfare of the sick.

The need for an organization of this sort has long been felt by the hospitals of Illinois. There had previously been no association to represent hospital interests as apart from professional and group interests. Illinois hospitals, as a group, had had no power to determine or direct policies affecting their own administration. To remedy this lack certain members of hospital boards, among whom were Mr. Wm. J. Rathje, Englewood Hospital, Mr. A. J. Pflaum, Michael Reese Hospital, Rev. Peter Peterson, Augustana Hospital, Dr. M. L. Harris, Policlinic Hospital, Dr. Emil Ries, Post-Graduate Hospital, Dr. Wm. L. Noble, West Side Hospital, Dr. C. O. Young, Washington Park Hospital, and Dr. E. T. Olsen, Englewood Hospital, determined upon the organization of such an association. A preliminary meeting was held in September, 1918, and on February 7, 1919, the first meeting of the Illinois Hospital Association was held, at which eleven hospitals were represented. Officers were elected, by-laws prepared and adopted, and an Executive Committee appointed with power to act on all matters affecting hospitals and the care of the sick therein. It was voted to invite all hospitals in the State to become members.

The meeting of this year was opened with an address by the president, Dr. M. L. Harris, of Policlinic Hospital, in which the work and activities of the Executive Committee during the past year were described. The bills opposed during the last session of the Legislature, the nursing law, and the two year course of training for nurses were discussed. The opinion of the Attorney-General in regard to the powers and obligations of the Department of Registration and Education relative to the nursing law was read. An important point of the opinion, emphasized by Dr. Harris, was, that the hospital reputability shall be judged by its general efficiency in the care of the sick and the training of nurses, and not by the daily average of patients cared for, or the courses offered, or by any arbitrary requirement laid down by the department of registration and education.

In a report on the movement to standardize hospitals, Dr. Olsen, of the Englewood Hospital, Secretary of the Association stated, that in as much as there are now fourteen different bodies attempting to work out standardization programs for hospitals it was appropriate that hospitals should interest themselves in the welfare of their own conduct and formulate decisions as to what constitutes proper hospital administration and efficiency. Dr. Olsen defined hospital standardization as synonymous with hospital efficiency, and stated that any standardization program which did not take into consideration the size and location of the various hospitals in the State, the conditions under which they were operating, the willing and voluntary co-operation of the hospital itself, and the vested property rights of the hospital, could not be imposed. Activities which Dr. Olsen recommended should have increased attention by members of boards of trustees of all hospitals, and which would automatically increase the efficiency of the institution were; an intimate knowledge of the care and attention given patients; purchase and issue of supplies; co-operation of staff and hospital; frequent, regular meetings of staff; adequate record keeping (including clinical histories) and their proper protection and preservation; the providing of facilities for and the proper supervision of laboratory work commensurate with the demands of the hospital; and a proper supervision of the work of the training school including the amount and character of instruction given student nurses, their working and living conditions and opportunities for recreation.

Further emphasis was placed upon the necessity of hospitals becoming active in formulating standards by which to judge hospital efficiency and service by Dr. Humiston of the West Suburban Hospital.

A motion was made and carried to appoint a committee of nine, subdivided into committees of three, to make a survey of the hospitals in the State (grouped according to their bed capacity) and recommend a basis upon which their efficiency may be measured. The committee is also to act as an advisory body to aid hospitals, deficient in any respect, to increase their efficiency.

The two year course of training for nurses, approved by the State Legislature was discussed, and a motion that all hospitals be urged to adopt this course was carried. Dr. Noble also presented a tentative curriculum for the two years course with the suggestion that it be used as a basis for the course of instruction given to nurses.

The report of the Secretary showed a present membership of 76 hospitals representing a bed capacity of over 7,000.

Among other speakers and those taking part in the discussions were: Dr. Clifford U. Collins, Peoria; Dr. J. H. Franklin, Spring Valley; Dr. A. H. Dollear, Jacksonville; Dr. George B. Kelso, Bloomington; Dr. R. Hazen, Paris; Dr. J. B. Kaufmann, Blue Island; Dr. R. M. Orr, LaSalle; and Dr. T. A. Johnson, Rockford.

The present Officers were re-elected and are as follows: Dr. M. L. Harris, Policlinic Hospital, President, Dr. Wm. Olsen, Englewood Hospital, Secretary, Dr. C. O. Young, L. Noble, West Side Hospital, Vice President, Dr. E. T. Washington Park Hospital, Treasurer.

Board of Directors: Mr. A. J. Pflaum, Michael Reese Hospital, Mr. Wm. J. Rathje, Englewood Hospital, Rev. Peter Peterson, Augustana Hospital, Dr. Emil Ries, Post Graduate Hospital, Dr. Martin M. Ritter, Columbus Hospital.

BRITISH COLUMBIA HOSPITAL ASSOCIATION HOLDS CONVENTION

At the convention of the British Columbia Hospital Association to be held at Vancouver, British Columbia, June 23-26, issues of paramount interest to hospitals will be discussed. Every phase of modern hospital administration will be treated, as is shown by the tentative program. There will be a symposium on nursing, at which questions such as these will be discussed: Nursing Standards, The University in Relation to Nursing Education, The Organ-

ization of a Public Health Nursing Service, The Work of Voluntary Societies in a Public Health Nursing Service, and the Coordination of State and Private Enterprises in Public Health Nursing Services. The Training School in the Small Hospital will also come up for discussion, as well as the present burning question of how the number of applicants for nursing training can be increased.

The Ward Attendant Group will also come up for discussion.

In the medical session of the conference papers will be read on the following subjects: The Scope of Medical Service to Be Expected in Rural Hospital; the Clinical Laboratory for Small Hospitals—Its Equipment and Operation; the Importance of Keeping Case Records in Every Hospital; the Minimum Requirements of Hospital Standardization; and Hospital Dietetics in Relation to the Scientific Treatment of Disease.

The business session will be devoted to the discussion of hospital financing, the Standardization of Hospital Accounting, the Organization and Management of Hospitals, and the important subject of Uniform Monthly Reports to Boards of Directors.

THE ATLANTA CONVENTION

The first Biennial Convention of the three greatest nursing organizations in the world ended in Atlanta on April 17. It was the twenty-fifth annual meeting of the National League of Nursing Education, the twenty-first annual meeting of the American Nurses Association, and the seventh annual meeting of the National Organization for Public Health Nursing. The nurses, numbering more than three thousand, discussed the present and future outlook of nursing with a spirit of enthusiasm, democracy, and business-like efficiency. For nine days meetings were held—morning, noon, and night—in the Tabernacle and the Auditorium, but to the surprise of some of the Atlanta folk, there was no falling off in attendance. The delegates and visitors were there to learn and they steadfastly refused to think of the movies, the shopping district, or the charming country drives.

Although each of the associations had its own sessions, there were joint meetings in which they discussed matters of interest to all. In one of the general assemblies the Sheppard Towner Bill was indorsed. In another, the request of the American Legion for a cash bonus to be given by the Government to every participant in the great war, regardless of the length of service, was discussed, and resolutions were passed to the effect that the nurses are not in sympathy with the movement, that the men went into the War because they wished to be of use to the country, and not because of any desire for pecuniary reward. The associations are of the opinion, however, that those who were disabled in service should be given extra assistance.

For some time the National Organization for Public Health Nursing has had offices at 156 Fifth Avenue, New York City, and a branch office in Chicago. At the Convention in Atlanta, it was decided that joint offices of all three national nursing bodies should be established in New York City. This is a great advance and will, without doubt, result in better cooperation and greater efficiency in the future of the whole nursing profession.

Miss Katherine Tucker, president of the National Organization for Public Health Nursing, and superintendent of the Philadelphia Visiting Nurse Association, presided over the meetings of the public health nurses. The by-laws of the National Organization for Public Health Nursing were revised, the most important change being the striking out of the voting-by-mail privilege. This was accomplished after a very spirited discussion with arguments that showed considerable determination.

The rapid development of industrial nursing in recent years led to the formation of a separate section under the National Organization for Public Health Nursing, with the Appointment of officers and the passage of resolutions. Separate sections were also formed in School Nursing, Child Welfare, and Tuberculosis.

The National Organization for Public Health Nursing, the only nursing body which admits lay members, included in its program a session for non-professional members, devoted to public health nursing administration. Special emphasis was placed on the need and proper management of nutritional clinics, publicity aids in public health nursing, newer fields of public health nursing, rural needs and rural problems, the protection of school children, and the recruiting of student nurses for the training schools.

The next convention will be held in Seattle in 1922. Invitations from Des Moines, Kansas City, Salt Lake City, and Seattle were extended, but the Coast City won through the energy and enthusiasm of the "booster delegates," who vowed that Seattle could surpass any other convention city in the United States.

Miss Edna Foley, superintendent of the Chicago Visiting Nurse Association, was elected president; Miss Elizabeth Fox, director Bureau of Nursing, American Red Cross, Washington, D. C., first vice-president; Miss Jessie Marriner, Alabama State Supervising Nurse, second vice-president; and Miss Olive Chapman, director of nursing in the Mountain Division of the Red Cross Section, secretary.

The Old Order Changeth, Yielding Place to the New

The *British Journal of Nursing* presents from *The Gentlewoman* this telling little sketch, showing the gap that has been bridged between the former days of "Sairy," with her bottle of drops to cure all ills, and the present era of the "Registered Nurse," whose standardized training has raised her profession to the dignity it deserves.

The Foreordination of Fate

Two days in vain may'st heed thee of death—
The appointed and the unappointed day.
On the first, there's no healer thy life can save
On the second, no sword the life can slay.
Pindar of Kuhistan.

OHIO HOSPITAL ASSOCIATION MEETS

WHEN the president of the Ohio Hospital Association, the Rev. M. F. Griffin of St. Elizabeth Hospital, Youngstown, Ohio, tapped the table with his gavel and called to order the sixty-odd members and guests of the association who had foregathered for the opening session of the sixth annual convention, he plunged immediately into the vital subject of the future relation of the Ohio Hospital Association to the American Hospital Association. Indeed, this was the central theme of his presidential address. He contended that while the hospitals of Ohio had many problems to face and solve—problems such as the increased cost of supplies, equipment, and building materials, the shortage of nurses due to the great demand for graduate nurses in the social service and public health fields, compensation for industrial cases,—one of the big problems was how the hospitals could take their rightful place in the larger public health program upon which the American public had embarked. Father Griffin felt that all the activities of the public health movement should revolve about the hospital. To make this possible, the hospital must adopt a wider principle of operation, which would make possible greater cooperation with many outside local and national agencies interested in public health work. This cooperation, Dr. Griffin argued, could best be accomplished by having the Ohio Hospital Association affiliated with the American Hospital Association. Under such an arrangement the Ohio Hospital Association as well as other state associations would preserve their own organization and meet the problems peculiar to their communities, while the American Hospital Association would function in the broader national sphere, coordinate the activities of the various state societies and serve as a channel through which the state associations could cooperate with other national organizations engaged in health work.

Following Father Griffin's suggestive address, Dr. A. R. Warner, executive secretary of the American Hospital Association read a paper (printed in full on page 480 of this issue) on "A Stronger Organization of the American Hospitals," in which, in contradistinction to Dr. Griffin's address, he presented this important topic from the standpoint of the American Hospital Association.

In his report as secretary, Dr. E. R. Crew, Superintendent, Miami Valley Hospital, Dayton, Ohio, called attention to the fact that besides transacting the routine business of the Association, the Executive Committee had delegated to its Committee on Constitution and Rules the task of formulating such changes in the Association constitution as may be necessary to make possible affiliation between the Association and the American Hospital Association, and had had conferences with the State Department of Health on a standardized form of annual report for the hospitals of the state, and with the State Industrial Commission on the question of rates of compensation to hospitals for industrial cases.

Tuesday evening's meeting might very appropriately be called the public officials' session, for it was devoted to a discussion of the relationship of the state to the hospitals along certain lines. Mr. H. G. Southmayd, Chief, Bureau of Hospitals, Department of Health of Ohio, read a well thought out paper on the "Relation of the State to Hospitals in the Light of Recent Legislation" and what has been accomplished under that legislation. Mr. Southmayd's paper showed the splendid spirit of cooperation that exists between the hospitals of the state and the State Department of Health. Mr. Southmayd reviewed the provisions of the Tully Resolution passed by the Ohio Legislature about a year ago, which called for the establishment of a Bureau of Hospitals in the State Department of Health, a survey of the present hospital situation in the state, and a report based on this survey to be made to the legislature by the first of next year as the basis of further legislation on hospital matters. He pointed out that the purpose of the legislation was to promote the health of the citizen of the state through the provision of adequate and efficient hospital service. Some conception of what remains to be done along this line, aside from raising the standards of existing hospitals, may be gathered from the single fact brought out by the Bureau's survey, that twenty-three of the counties in the state have no hospital beds within their boundaries.

Mr. T. R. Fletcher of the Industrial Commission of Ohio spoke on "The Industrial Commission and the Hospitals." Mr. Fletcher stated that although the executive committee of the Ohio Hospital Association had recently appeared before the Industrial Commission for a hearing on the readjustment of payments for industrial cases, the commission thought best to defer action on the matter until after this meeting at which it was hoped to get the consensus of opinion of the membership of the Association.

Delegates of the Ohio Hospital Association assembled on the steps of Memorial Hall, Columbus, Ohio.

As the result of the recent conference the following scheme was suggested:

(1) That the Industrial Commission approve the principle of cost for hospital service rendered as the basis for fixing hospital rates.

(2) That individual agreements or contracts be entered into with each hospital on the basis of its average daily per capita cost.

(3) The average daily per capita cost to be secured from the annual reports made to the Bureau of Hospitals of the State Department of Health.

Nursing problems and dietetics were the centers of attention at the round table discussions which occupied the

P. W. Behrens, M.D., newly elected president of the Ohio Hospital Association.

forenoon session of Wednesday morning. Miss Ida May Hickox, Chief Examiner of Nurses of Ohio, conducted the round table on nursing, while Mr. Frank E. Chapman, Superintendent Mt. Sinai Hospital, Cleveland, Ohio, served as chairman of the round table discussion of dietetics.

Miss Hickox in opening the discussion reviewed the work of the Nurse Registration Board of Ohio; and stated among other things, that the public was demanding higher standards of nursing training just as the public was demanding higher standards from the hospitals; that the curriculum of yesterday was now out of date and ineffectual for the needs of today and that the great problem was how to meet the demands of the public for a higher type of education and at the same time meet the nursing needs of the hospitals and the community at large.

The question was asked as to whether the present shortage of nurses could be met by shortening the course of training to two years. Miss Hickox declared she could not see how nurses could receive the training the public demanded in less than three years on an eight-hour basis —a basis which all hospitals must shortly adopt if they expect to have any pupil nurses at all. Miss Hickox asked the hospitals especially to discourage pupils changing from one hospital to another, a practice which was now quite common, due to the general spirit of unrest. She contended that if after a fair hearing a pupil was found undesirable by one school she was undoubtedly undesirable for others.

Miss Mary Jamison, Superintendent of Grant Hospital, Columbus, stated that during the past six years she has been in the habit of giving talks to the girls in the graduating classes of nearby high schools in an effort to stimulate an interest in nursing as a calling. She speaks not as a representative of Grant Hospital, but of the League for Nursing Education. She attributes her success in getting all the pupil nurses she needs very largely to her educational efforts among high school girls.

Dr. E. R. Crew, Superintendent of Miami Valley Hospital, expressed the belief that some scheme could be worked out whereby the high schools could be tied up with the hospitals so that girls in their final high school year could take an elective course leading to nursing much as the scheme in some localities where the schools have an arrangement with department stores for practical work on salesmanship. This plan he contended would set them to thinking along the lines of nursing as an occupation. The suggestion met with such approval that a special committee was appointed with Dr. Crew as chairman to work out some such plan of co-operation with the high schools of the state.

A plea for the recognition of the need for trained attendants and some plan for their training was voiced by Miss Alice Thatcher, Christ Hospital, Cincinnati, Ohio.

Miss Marie Lawson, R.N., contended that if nursing schools were put on an A1 basis, if the homes were made attractive, if the nurses were properly fed and had a working schedule of eight hours, they would have the best opportunity for getting the pupil nurses they needed.

On the question of non-resident pupil nurses, Dr. Crew knew of no strong reason for not adopting the plan where

Rev. M. F. Griffin, President of the Ohio Hospital Association, 1919-20, elected to five year trusteeship.

housing facilities were not available. The great objection, of course, would be in the lack of control of the evening hours off duty. It was pointed out that in some eastern hospitals the graduate nurses get sufficient salary to enable them to live outside the hospital.

In the discussion on dietetics, the question of what procedures had been adopted by the various hospitals to

effect economies in dietary costs, was raised. One or two hospitals stated they had introduced the cafeteria system for their nurses and help with success. This elicited the observation that while the system was all right as an economy and labor-saving device in the presence of a labor shortage, it did not create the home atmosphere for which the hospitals were striving, and should therefore be abandoned as soon as the stringency in the labor market was reduced. Dr. Bachmeyer stated the cafeteria system had worked successfully at the Cincinnati General Hospital for the nurses for breakfast only, and for the help for luncheon only. Its success with the help he felt was due to the fact that they get their other meals at home.

Considerable difference of opinion developed on the question of who should do the dietary purchasing, some contending that the dietitian should; others that she should not on the ground that the practice of having the consumer of goods do her own purchasing was wrong in principle. This does not mean that the purchasing agent should not consult with the dietitian on frequent occasions. It was pointed out that in the purchase of green goods during the summer months the purchasing agent should co-operate closely with the dietitian, in some cases to the point of having the purchasing agent and the dietitian go to market together.

On the question of new food substitutes Mr. Chapman observed that some food substitutes were good, notably certain cereal coffees and butter substitutes which were both palatable and rich in fats.

There was a great divergence of statement regarding unit food cost and only one or two delegates knew the unit of consumption a day in their institutions.

E. R. Crew, M.D., Secretary-Treasurer 1919-1920, elected treasurer.

In an effort to interest state and tuberculosis hospitals in the work of the association, the Wednesday afternoon session was devoted to papers on mental hygiene, and the tuberculosis hospitals of the state of Ohio. The former subject was presented by Dr. E. A. Baber, Superintendent Dayton State Hospital, in an illustrated lecture. The latter subject was covered by Dr. S. A. Douglass, Superintendent Ohio State Sanatorium, Mount Vernon, Ohio, in a brief paper bearing the title "The Tuberculosis Hospitals of the State." In his paper, Dr. Douglass brought out the fact that sixty-five counties in the state of Ohio have no facilities for the institutional care of tuberculosis. This shortcoming was forcibly brought home by the request of the U. S. Public Health Service for beds for the treatment of discharged tuberculous soldiers.

Dr. Douglass' paper was followed by a brief review of the organization for public health service in Ohio by Dr. A. C. Bachmeyer, who reviewed the development of public health work in the state of Ohio, beginning with the passage of the Hughes Bill and the Griswald amendment, to the present time. He called attention to the fact that,

Mr. F. E. Chapman, appointed secretary.

whereas before the passage of the Hughes Bill, there were two thousand health officers throughout the state, 70 per cent of whom were not physicians, the number under the Hughes Bill had been reduced to one hundred and sixty-eight, all of whom were physicians and knew something about public health work. Inasmuch as the State Commissioner of Health had expressed the hope that a voluntary public health organization might be formed to support the work of the State Department of Health, the Ohio Society for the Prevention of Tuberculosis had recently been reorganized and its name changed to the Ohio Public Health Association. The objects of this new association are to be:

(A) The promotion of the organization and work of local public health leagues in all parts of Ohio.

(B) The dissemination of knowledge concerning the prevention of disease with particular reference to the prevention of tuberculosis.

(C) The encouragement and support of organized and official work for the prevention of disease with particular reference to the prevention and scientific treatment of tuberculosis.

(D) The securing of proper legislation for the prevention of disease.

(E) The encouragement of adequate provisions for the prevention of disease by the establishment of hospitals, sanatoriums, clinics, dispensaries, for service of every description, and otherwise the doing of all things and acts having as their object the prevention of disease.

(F) The study of conditions regarding the prevalence

Memorial Hall, where the convention meetings were held.

of preventable disease, especially tuberculosis, in the state of Ohio.

Mr. C. F. Owsley of Youngstown, O., led a brief round table on the subject of hospital construction, devoting his time largely to Ohio's building code as it applies to hospitals.

Wednesday evening's session consisted of a banquet at the Hotel Deshler at which, in an after dinner speech, Dr. Starr Cadwallader discussed the subject of the present day program of the American Red Cross.

At the final session of the association, held Thursday morning, Rev. Charles B. Moulinier, S.J., President, Catholic Hospital Association, spoke on The Appraisal of Hospital Output, laying special emphasis on the necessity for searching scrutiny of hospital work from the standpoint of end results to determine their efficiency. Resolutions were passed approving the principle of the state licensing of hospitals, to cooperation with the high schools in the training of nurses, and approving the principle of cost payment for hospital service in industrial cases. A resolution was also passed dissolving the Ohio Hospital Association as a state organization, and creating the Ohio Section of the American Hospital Association, to be known as the Ohio Hospital Association.

The following officers were elected: President, Dr. P. W. Behrens, Superintendent Toledo Hospital, Toledo, O.; First Vice President, Dr. A. C. Bachmeyer, Superintendent Cincinnati General Hospital, Cincinnati, O.; Second Vice President, Miss Nellie I. Templeton, Superintendent Salem Hospital, Salem, O.; Treasurer, E. R. Crew, Miami Valley Hospital, Dayton, O.; Secretary, F. E. Chapman, Superintendent Mount Sinai Hospital, Cleveland, O.; Trustees: for one year, Dr. A. C. Bachmeyer, Superintendent Cincinnati General Hospital; two years, C. B. Hildreth, St. Luke's Hospital, Cleveland, Ohio.; three years, Miss Mary Subray, City Hospital, Warren, O.; four years, W. H. F. Marting, Keller Hospital, Ironton, O.; five years, Rev. M. F. Griffin, St. Elizabeth's Hospital, Youngstown, O.

The next meeting will be held in Toledo, O., May, 1921.

A STRONGER ORGANIZATION OF THE AMERICAN HOSPITALS*

By ANDREW R. WARNER, M.D., Executive Secretary, American Hospital Association

Cooperation between The American Hospital Association and the various state hospital associations for the welfare and for the best interests of the hospitals is not a new idea. Several years ago the Constitution of The American Hospital Association was so worded as to permit the development of this cooperation at any time that seemed feasible. We hope that such a time has now come.

Our nation is divided into states, each with separate laws and procedure. Any question involving legal status is either a state or a national matter. It is therefore advisable that hospitals be organized in the same way to meet best the legislative and legal status problems. Questions not affected by legislation or legal status should be handled by a grouping of hospitals as general as the questions, and practically all of such questions are national in scope. It seems logical, therefore, that the organization of the hospitals of the country should proceed along strictly state or national lines.

The work of the American Hospital Association has heretofore been confined to all practical purposes, exclusively to problems of national scope and this indeed provides a much larger field of work than has been undertaken. The problems of hospitals arising in the different states has not been given attention for two reasons: first, because these problems have not usually come to the attention of the Association until after settlement of the question within the state and then if at all, in the form of a protest; and second, because there was no effective

*Read at the Sixth Annual Meeting of the Ohio Hospital Association, Columbus, O., May 25, 1920.

The Columbus State Hospital, Columbus, O., one of the largest Kirkbride buildings ever built, accommodates 1,500 patients and employees. It is a mile and a quarter around the foundation walls.

organization within the state from which we could learn the general attitude of the hospitals of the state and the local conditions and through which we could work effectively.

Hospital Viewpoint Overlooked in Legislation

All hospitals have become painfully aware of the fact that legislation affecting the health work in a state can be enacted without consideration of the established practices, customs, organization, and procedure of hospitals and that this invariably proves very troublesome to hospitals. In addition to being troublesome, these laws often cause the hospital definite demonstrable financial loss. In most cases this was clearly not intended in drafting the law. It is chargeable to the ignorance of those who drafted the legislation in matters of hospital management, and to the indifference of hospitals to legislative action, which can make it possible for legislation seriously affecting hospital work to be introduced, given the usual publicity, passed by both houses of the state legislature and signed by the governor without the viewpoint of hospitals being voiced in any definite, concerted way, even if it is voiced at all.

Nearly every state in the union has now passed industrial insurance legislation compensating the injured for industrial accidents, and many of these laws provide, in addition to the compensation to the injured, liberal allowance to physicians and surgeons for their services to the injured; but all these laws have failed to provide adequate or even reasonable compensation to hospitals. The hospitals have been compelled under the laws to expend endowment or other income in the care of state cases, for it is practically impossible to avoid admitting them. You in Ohio have been more fortunate and have from the first fared better than the hospitals in other states. The adoption of the principle that the average cost of the service rendered is the equitable figure to be paid to hospitals for the care of state industrial cases—which is now under discussion and consideration by the Ohio Commission—will lead the other states to the same position. As there seems to be no justification for hospitals using endowment or other income in the care of state cases at compensation below cost, which divert to the state funds given for charity and, on the other hand, no justification for the state's paying profit to the hospitals, the average cost seems the proper amount of compensation.

Anyone can see plainly the present trend towards state supervision of health with the ultimate goal of adequate hospital and medical service for all, regardless of the individuals' status or circumstances. This must mean the development of many future laws of vital interest to hospitals, and hospitals must be prepared to place their side of these questions before those who shall frame such laws that this country may never again be compelled to work out the relation between the states and the hospitals after the laws are enacted. This is only one phase of the legislative probabilities.

The Children's Hospital, Columbus, O.

It is not merely a coincidence that Ohio has the oldest and strongest state hospital association in the country, and that the laws of Ohio, affecting hospitals are more considerate of the problems of hospitals and are more favorable to the development of the hospital field than any other state of this Union. In this state there has been an organization which could be consulted on state hospital questions, which could thresh them out to a common opinion and judgment, and which could present the viewpoint of the hospitals with concerted action. Such a strong state association can aid materially the work of The American Hospital Association, and there are some of us who believe that The American Hospital Association can in many ways help the state associations to be of greater service to the hospital field generally and to the hospitals of their state in particular.

A stronger organization of hospitals than we now have can be developed by the organization of active state associations in every state, in which hospitals may work with common interests under common legal status, and the

Franklin County Sanatorium for Tuberculous Patients.

combination of all those into a national organization to meet national problems. The American Hospital Association is definitely committed to this policy and will give assistance in every way possible. There are now about five active state associations and a dozen more in process of organization.

To accomplish this organization it is proposed that there shall be established a cooperation and a working affiliation between the American and the state associations whereby the state association shall preserve its autonomy in every way but shall act as the state representative or section of The American Hospital Association, receiving all aid and support which The American Hospital Association can bring to it.

Resolution Concerning State Membership

Some months ago the trustees of The American Hospital Association passed the following resolution:

"VOTED, That a state hospital association may be approved as a "geographical section" of The American Hospital Association, provided that for every member of such state association eligible to active or associate personal membership in The American Hospital Association there shall be annually collected and paid to the state associations from and by such members, membership fees not less than the corresponding fees required by The American Hospital Association, and that the state association shall pay annually to The American Hospital Association for every associate member $2.00 and for every active member $5.00; and that, upon receipt of such payments, there shall be paid and allowed by The American Hospital Association to such state association for every active member $2.00 per annum to defray the expenses of the state association, as a section of The American Hospital Association. The state association, when approved as a section of The American Hospital Association, shall furnish lists to The American Hospital Association of members for whom the amounts of $2.00 and $5.00 annually have been paid, and the members so listed shall, if eligible to corresponding membership in The American Hospital Association, be entitled to all the privileges of personal membership in The American Hospital Association, in their respective classes."

The form of this resolution is simply a working suggestion. The minutes of this meeting state that the wording of this resolution will be modified, "if on consultation with state associations, it is found that a change is desired." By this resolution the institutional membership is left direct with The American Hospital Association, but the personal membership is accomplished through and depends upon membership in the state hospital associations. It is expected that in addition to that proportion of the dues of The American Hospital Association which the state hospital associations shall retain to carry out its function as a state section of The American Hospital Association, that the state associations will continue to fix such additional dues for their membership as shall seem to them best.

In addition to the American and state associations, hospitals operated by general organizations, such as churches, have something in common with each other and something apart from the other hospitals, and this may well be of sufficient importance as to justify separate national organization along these lines. The American Association will cooperate with all these most cordially.

There are many reasons other than legislative for active state associations. The trustees of hospitals are now more generally recognizing that the management of the medical institution is technical work, and that they are the gainers from the more thorough training of their executives. This brings support to the development of additional hospital meetings. It is impossible for all the hospital executives of the country to attend the meetings of The American Hospital Association. It is impossible in a four-day meeting to discuss all the live hospital questions. The programs of The American Hospital Association are showing a distinct trend toward two lines of discussions: the first, a discussion of basic principles of universal application; and second, the discussion of practical questions in minute detail. There seems to be little middle ground. Many of the practical questions involve legal status, making a general national discussion of little value, for the reason that the various speakers work under and know only the varying legal status in the different states. The meetings are too large for the most effective discussion of practical details. All this simply expresses the need for associations in every state. At these state meetings all questions involving legal status can be intelligently discussed from a common standpoint, and forty-eight round table discussions of other practical questions at state meetings can each accomplish about as much as the one at the American meeting. Every new consideration of the question brings out additional reasons for the organization of the hospitals of this country into an American Hospital Association, and into state hospital associations working in cooperation with and as state sections of The American Hospital Association.

Inasmuch as Ohio had the first state hospital association and still has the strongest and most active of the state associations, this new plan of cooperation should be developed first with the Ohio Association. To this end we urge a thorough discussion of the question at this meeting and the development of such detailed plans as may be wise; at least the adoption of a constitution similar to one to be proposed later, which will authorize such cooperation as "shall be mutually desired," and also provide for the combination of personal memberships, that there may be developed in Ohio, as soon as possible, funds for the carrying out of such measures as "shall be mutually desired" by the association, and that the beginning of the better organization, outlined above, may be made.

OKLAHOMA STATE ASSOCIATION MEETS

The annual meeting of the Oklahoma State Hospital Association was held on May 19th, at Oklahoma City, thirty hospitals being represented. The following officers were elected for the ensuing year: President, Dr. Fred S. Clinton, Oklahoma Hospital, Tulsa, Okla.; first vice-president, Dr. J. A. Hatchett, El Reno Sanitarium, El Reno, Okla.; second vice-president, Dr. A. J. Risser, Blackwell Sanitarium, Blackwell, Okla.; executive secretary, Paul H. Fesler, Supt. University Hospital, Oklahoma City, Okla.; treasurer, Dr. J. H. White, Baptist Hospital, Muskogee, Okla.; delegate to American Hospital Association, Dr. C. L. Reeder, Tulsa Hospital, Tulsa, Okla.; Alternate, Dr. G. A. Boyle, Enid General Hospital, Enid, Okla.

ONE ON THE DOCTOR

The Red Cross doctor was examining a doughboy who had been badly wounded in both hands.

The boy surveyed his injured members ruefully.

"Do you think I'll be able to play the piano when I get well?" he asked.

"Certainly you'll be able to play the piano," said the doctor emphatically.

"That's funny," remarked the soldier, "I never could play one before."

DISPENSARIES AND OUT-PATIENT DEPARTMENTS

Conducted by MICHAEL M. DAVIS, JR.
Director, Boston Dispensary, 25 Bennet St., Boston

NEW YORK DISPENSARIES: MEDICAL ORGANIZATION*

A section of Report made by the Public Health Committee of the New York Academy of Medicine on the New York Dispensaries.

New York Has Few Pay Clinics

With the exception of the Neurological Institute, whose whole work is that of a pay clinic, New York City has had little experience with the pay clinics. Of the dispensaries studied, only one—the Brooklyn Hospital Dispensary—has adopted the pay clinic plan, and there only for the diagnosis and treatment of genito-urinary diseases. A fee of $1 is required for each visit, and the fees are divided between the physicians and the hospital—one-third to the hospital and two-thirds to the physician. At this institution the genito-urinary work of the day "free" clinic and the evening "pay" clinic is combined in one department and the same physicians who do the free work in the afternoon and the "pay" work in the evening, under a plan of rotation which suits the convenience of these physicians. Evening pay clinics operated on either a similar plan or on a salary basis have been developed very satisfactorily in the Boston Dispensary, not only for genito-urinary diseases, but also for eye, ear, nose, and throat, and general medical and surgical diseases. Several dispensaries in Chichago, Cleveland, and several other cities have established pay clinics for both diagnosis and treatment or for diagnosis only; and uniformly the reports speak favorably of their operation.

Whether or not this principle will find an application in New York City depends in a large measure upon the attitude of physicians themselves. Several years ago the management of Mt. Sinai considered the establishment of a pay clinic, but abandoned the plan because of the opposition of the medical board. Many are opposed to it on the ground that it seriously interferes with the income of private practitioners. This may be true, but the fact nevertheless remains that the pay clinics are an urgent necessity, for it is only in such clinics that patients are enabled to have at small cost the benefit of all the facilities for diagnosis and treatment which any good dispensary affords. To obtain similar service from private physicians, particularly in the so-called specialties, is well nigh impossible for the people with moderate income.

Cooperative medical work of this kind is bound to survive for its manifold advantages and because it answers a well recognized need. Whether the work is done in institutional clinics or in private clinics maintained by a cooperating group of physicians, or through the agency of social insurance, is perhaps not of great moment as far as the public is concerned. It is, however, a matter of concern in dispensary organization.

(f) The Workmen's Compensation Act in Relation to Dispensaries.—Although discussion of the merits or defects of the Workmen's Compensation Law does not fall within the scope of this report, the treatment of cases accruing from the operation of the law is important from the standpoint of medical organization and service.

There is no uniform procedure among dispensaries in dealing with patients under the compensation law. In one dispensary the hospital authorities collect a fee of $1 for each visit and, after deducting 15 per cent for the overhead expense of collecting fees, distribute the money among the dispensary physicians who were concerned in the treatment of the patients; in another dispensary, one-half of the total bill for compensation cases goes to the dispensary and one-half to the dispensary physicians; in another dispensary, all money for compensation cases goes to the dispensary; in some institutions no effort is made to differentiate compensation cases from other cases and no attempt is made to collect money for services rendered. One dispensary charges $2 for first visits and $1 for second visits, all money from first visits being retained by the dispensary, and receipts from second visits being distributed among physicians; in another instance compensation cases are referred from the dispensary to the emergency or accident ward of the hospital with which the dispensary is connected; and in still another instance the patients are advised to go to the private offices of dispensary physicians. In one dispensary physicians are permitted to collect the fees themselves—a practice which has led to much criticism. In view of the lack of uniformity of procedure, it is difficult to appraise the effect of the procedure on the medical service, other than to say that there is almost general dissatisfaction on the part of physicians with the operation of the law.

One reason for dissatisfaction with the whole system

(f) The Workmen's Compensation Act in Relation to dispensaries.
(g) Home visiting medical service.
(h) Laboratory and x-ray service.
(i) The nurse in the dispensary.
(j) The dietitian in dispensary work.

This is the third and last installment of the second chapter of a series of three chapters, taken from this report because of their special interest to dispensary and hospital executives. Chapter 1, "Organization, Administration and Equipment of Dispensaries," was published in two parts, Part I, in the February issue; Part II, in the March issue. The first and second installments of Chapter 2, "New York Dispensaries—Medical Organization" were published in the April and May issues.

is that there is great difficulty in collecting money from the corporations responsible and from the insurance companies. They are able, by clever dodging, to delay payment, and if the amount is small, the hospital or dispensary authorities prefer to ignore the non-payment rather than to spend a large amount of time and energy in trying to collect the bill. The only dispensary in the group studied which has a satisfactory plan for handling compensation cases is the New York Hospital Dispensary. There, because of the great number of compensation cases, a special compensation department was created for both hospital and dispensary, in charge of an adequate force of clerks, who are responsible for the registration of cases, preparation of bills, and collection of money. In this institution all moneys received go directly to the hospital. In lieu of allowing dispensary physicians to receive fees for the care of compensation cases, all the physicians are paid regular salaries, varying with their rank in the dispensary from $100 to $300 a year.

Salaries Instead of Fees

The plan adopted in the New York Hospital Dispensary is by far the most satisfactory observed in this study. It guarantees salaries to physicians instead of making them dependent upon fees which may or may not materialize. All physicians are placed upon the same footing and so there is no dissatisfaction among them. In dispensaries where the number of compensation cases is few, such organization as the New York Hospital Dispensary has developed is of course not needed, but certainly the principle adopted by this dispensary, in paying physicians fixed salaries out of the proceeds, regardless of the number of compensation cases cared for individually, seems to be the most satisfactory solution of the problem as far as it concerns the medical staff.

(g) Home Visiting Medical Service.—The home visiting medical service which has been maintained by several of the detached dispensaries, like the New York Dispensary, the Northern Dispensary, and one of the hospital outpatient departments, has recently been decreased in amount because of the discontinuing of it in several institutions, notably at the Good Samaritan. In the opinion of the officers of the dispensaries where the home visiting service is maintained, it is considered of great value, not only because many of their patients might otherwise be denied needed medical care, but also because it permits the dispensary to follow up certain types of patients and to see that the dispensary work done is not wasted. It was difficult to obtain exact information as to the types of conditions treated by the visiting physicians and the circumstances under which these services are offered.

Home Visiting Medical Service

As far as we were able to ascertain, at least twenty-five cities maintain a home visiting medical service. Washington, D. C., Philadelphia, Cincinnati, Pittsburgh, Utica, Rochester, and Detroit employ considerable numbers of physicians for this work. The other cities which provide a certain amount of this service through the agencies of the municipality are Chicago, San Francisco, Portland, Me., Providence, Fall River, Paterson, N. J., Schenectady, Dayton, Newark, Indianapolis, Jacksonville, Denver, Hartford, Cleveland, Columbus, Utica, Buffalo, Baltimore, and Springfield, Mass.

The doctors are on full time in Cincinnati and Cleveland, elsewhere on a part time basis. In some of the cities, like Cincinnati and Rochester, the physicians also do school medical work.

Dr. Charles V. Chapin, superintendent of health of the city of Providence, believes that the service should be under the direction of the Department of Health. He writes that, contrary to his expectations, "there is rather a small number of chronics, while acute conditions make up the bulk of the cases. Thus, in 1917 there were 17 cases of measles, 25 of diphtheria, 35 of influenza, 68 of some acute throat troubles, 13 otitis media, 77 acute bronchitis, 59 pneumonia, 125 gastro-intestinal or feeding cases, 47 peurperal, 63 minor surgery. On the other hand, there were only 28 cases of pulmonary tuberculosis, 13 of cancer, 34 of heart disease, and 15 of rheumatism. Seven hundred and two of the cases remained in the home, the rest were sent to institutions, and many of these were visited for permanent diagnosis only." Dr. Chapin considers the service very valuable from the point of view of securing an early diagnosis in acute infections. He experiences no difficulty in getting first class young men to attend to the cases for a certain period of time at the rate of 75 cents per visit. He also states in his communication that in a very few instances were the cases referred able to pay a physician and that "the practicing physicians of the city are very much in favor of this service and consider it helpful and not a hindrance in any way."

District Physicians Render Service

The Boston Dispensary has been employing district physicians since the opening of the institution in 1796. The service is considerable. During 1918 the physicians made 12,213 to 8,194 visits to individual patients, the bulk being children. The physicians are employed on a part time basis, and by the rules of the dispensary they can hold the position for not more than three years. Some of the men hold fellowships in the Harvard or the Tufts Medical Schools. The appointments are awarded to young men of good training while they are starting their practice.

No accurate information is available as to the amount and character of the work done in this direction in New York, or in most of the other municipalities.

(h) Laboratory and X-ray Service.—Of the dispensaries included in this study, only three have complete, well equipped pathological laboratories for dispensary work separate from their respective hospitals. These are the Mt. Sinai Hospital Dispensary, Lebanon Hospital Dispensary, and the Polhemus Clinic (Long Island College Hospital Dispensary). In all other hospital dispensaries the major part of the pathological work is done in the hospital laboratory. Bellevue Hospital Dispensary has, however, small laboratories connected with the dispensary where routine work is done in the examination of urine, pus, smears, and the like, particularly in connection with the children's clinic and the gynecology clinic; at Gouverneur Hospital Dispensary a small laboratory is provided in connection with the medical clinic; at the New York Dispensary, the St. Luke's Hospital Dispensary, and the Brooklyn Hospital Dispensary special laboratories are provided for routine laboratory work in connection with the genito-urinary clinics.

Of the six dispensaries not connected with hospitals, Vanderbilt Clinic has a well equipped laboratory for general dispensary purposes, and a special laboratory for the genito-urinary and skin clinic; Cornell Dispensary utilizes the college pathological laboratory and has no special dispensary laboratory service; at the New York Dispensary the pathological laboratory provided in the dispensary is not used, all pathological specimens being sent to a private laboratory; at the Demilt Dispensary there is no adequate laboratory, and with the exception of occa-

sional urinalysis, or examination of smear, no laboratory work is done; at the Brooklyn City Dispensary the pharmacist makes an occasional test of urine, but no laboratory is provided.

Utilize Hospital X-Ray Service

In the dispensaries studied, twenty utilize the hospital x-ray service, and in two of these, namely, Mt. Sinai Hospital Dispensary and the Polhemus Clinic (Long Island College Hospital Dispensary), special x-ray equipment is provided in the dispensary for treatment only. Of the remaining five hospital dispensaries, Sloan Maternity Hospital Dispensary and the Knapp Eye Clinic refer patients to Vanderbilt Clinic for x-ray examinations, which utilizes the equipment of the Roosevelt Hospital for the purpose. The Nursery and Child's Hospital Dispensary likewise obtains x-ray service through the Roosevelt Hospital; the Babies' Hospital Dispensary and the Manhattan Clinic have no x-ray facilities.

Cornell Dispensary has an excellent x-ray equipment, utilized both for dispensary work and for instruction of students; the Clinic for Functional Reeducation made arrangements for the utilization of the x-ray equipment of the New York Infirmary for women and children, located in an adjoining building; New York Dispensary, Demilt Dispensary, Brooklyn City Dispensary, and the Speech Defect Clinic have no x-ray equipment.

The study of the medical work of the several institutions presented in another section of the report indicates the amount and character of laboratory work done in dispensaries in connection with the diagnosis and treatment of disease. Here it may be sufficient to state that on the whole this adjunct to medical practice is neglected in dispensary work.

(i) The Nurse in the Dispensary.—Aside from the tuberculosis, pediatric, and gynecological clinics, which almost invariably have nurses attached to their work, the dispensaries are not adequately supplied with nursing assistance. In the dispensaries not connected with hospitals having a training school the force of nurses is particularly low. In the out-patient departments of hospitals maintaining training schools, it is the practice to utilize pupil nurses, under supervision, for routine dispensary work, but even in such dispensaries the program of rotating pupil nurses through the dispensary is contingent largely upon the exigencies of hospital service, and has not been made an essential feature of the training school curriculum, except in one or two dispensaries. In fact, in the majority of hospital dispensaries, pupil nurses are assigned to dispensary work more or less informally and without definite purpose except to meet an emergency.

Of the thirty-two dispensaries included in the survey of administrative organization, nine are not affiliated with training schools for nurses—and of the nine three are operating in such a limited field that such affiliation would be unnecessary. But in the remaining six, affiliation with a nurses' training school would be a decided asset.

Duties of Dispensary Nurse

The usual practice in hospital dispensaries is for a supervising nurse of the hospital to be designated as head nurse of the dispensary. This arrangement is quite satisfactory so long as hospital duties do not conflict with dispensary duties. But it is highly essential that whoever is designated as head nurse of the dispensary shall be able to give an adequate amount of time to dispensary work which does not begin with the opening of clinics and does not end with their close. In fact, in a large dispensary with a large number of special clinics, practically the entire time of a head nurse is required. It is her duty to see that the dispensary quarters are clean, in good order, that supplies and equipment are prepared and at hand, that discipline and order is preserved, that the nursing needs of clinics are adequately met, that at the close of clinic work, equipment is properly taken care of, clinic rooms put again in order, and that the dispensary is thoroughly cleaned and made wholesome.

In small dispensaries, the head nurse may perform a variety of additional functions, depending upon the needs of service. She may be, as in the Brooklyn City Dispensary, the sole person responsible for clinic supervision, registering of patients, routine nursing work, and even visiting social service work after clinic hours. But this dispensary is an exception to the rule, because of its limited service and clientele.

With the present lack of a definite organization plan in dispensaries, the nurse is called upon to do the work of a nurse, a clerk, messenger, and general assistant to the physician. Such an arrangement may perhaps help in expediting the despatch of clinic business, but it is not economical and, moreover, if the nurses be pupil nurses, who are especially assigned to acquire training and experience in dispensary work, such a method, or lack of method, rather, defeats the purpose. A properly arranged plan can be of real service to the medical efficiency of a clinic and can at the same time afford to the nurse the training which she can only obtain in the dispensary, namely, a better understanding of the health and social needs of the community. Her duties should therefore be clearly defined and supervised.

As has already been stated, the ideal general dispensary is one which is affiliated with a teaching hospital, and the ideal dispensary nursing service is one which is affiliated with the training school of a hospital. In order to give the pupil nurse or other nurse as broad experience as possible, it is desirable that she have experience in as many departments of the dispensary as possible. It is not, perhaps, necessary that the nurse pass through all clinics, but whether she be a pupil nurse or not, she should have experience in those clinics which will give her the broader understanding of the community problem. She should, however, have experience in a general medical clinic, in a general surgical clinic, in a pediatric clinic, a genito-urinary disease clinic, and a clinic for diseases of women. If parental or dietetic service is provided by the dispensary, she should receive experience there. To round out her training she should have experience in the social service department.

So far as possible, the nurse's duties should be confined to nursing, that is, the preparation of the patient for examination and assisting the physician. If there be no clinic secretary, it may be necessary for her, in certain clinics, to assist the physician in taking and recording histories and in making appointments with patients and establishing their contact with other departments of the dispensary when necessary.

In the Social Service Department, in which all nurses, pupil or graduate, should have experience and training, her duties should include not only the interviewing of patients in the dispensary, but also the home visiting of patients.

(j) The Dietitian in Dispensary Work.—A recent development of dispensary service is the employment of a dietitian for the instruction of patients in the preparation of food. The service of such dietitians are extremely valuable not only in supplementing the medical advice and treatment, but also in aiding the Social Service Department to adjust family income to family expenditure. As

yet, none of the dispensaries included in this study have developed such service. This service has been provided and has been found well worth while in the out-patient department of the Massachusetts General Hospital, in the Michael Reese Hospital Dispensary, and in the Boston Dispensary. At the Massachusetts General Hospital, in addition to the educational work which the dietitian does in the dispensary, she is responsible for the preparation of lunches for patients. A lunch counter is provided and patients receive practical demonstrations in food values and at the same time obtain nourishing food at cost.

It is believed that large dispensaries, particularly those connected with hospital service, would find it practical as well as profitable to employ a dietitian for dispensary work, under the general supervision, perhaps, of the hospital dietitian, but particularly responsible for dispensary work. It is believed, too, that it would be decidedly worth while in large dispensaries, whose hours make it impossible for patients to obtain lunch without loss of places in the waiting room, to provide lunches for patients at cost.

The description of the work of the "Food Clinic" of the Boston Dispensary, as given in the annual report of the institution for 1918, will be of interest in this connection.* The clinic is of recognized educational value to the patients, and the Massachusetts Committee on Public Safety appropriated funds for a poster, fifteen feet long, painted in colors, to be put up in the clinic, outlining the chief functions of the several types of food. The patients are given booklets in which they put down in the proper rubrics the things they had each day for breakfast, dinner, and supper, and extras, and the books are presented to the dietitian upon the return of the patient to the clinic. The following is the description of the aims, functions, and work of the "Food Clinic."

"The war caused more or less change in the food habits of a number of persons in comfortable circumstances. It created a serious food problem for ever so many persons of small means. To assist in the effort to comply with the requests of the Food Administration, and in adjusting family budgets to the higher levels of prices, the Food Clinic was started in July, 1918. The health of the worker depends largely on his food. The food of the children largely governs their growth and stamina. There is the under-nourished child, whose mother is able to buy enough food for him but does not know how to cook and prepare it; there is the diabetic, whose dietary habits can only be adjusted to meet the demands of the physician through a careful process of education. Besides these and other special medical problems, there are a host of other families where the health of all members depends upon the most economical use of every cent of a small family income. For all types, such an advisory clinic as we have established at the Boston Dispensary is proving of the greatest value. Mothers are brought to the dietitan by the doctors and social workers; children are shepherded to her in little groups; with the aid of charts, account books, the gas stove, the double boiler, and other utensils and food samples with which the clinic is equipped, practical instruction is given in purchasing, preparing, and serving food. Classes of children are selected by the physicians as particularly needing better nutrition, and are taught with a view not only of interesting the children themselves in their own growth, but as a practical means of 'getting over' education into the home itself. The Food Clinic has brought forth a most gratifying response from the physicians and social workers of the dispensary, and from organizations outside.

"It has already been made a teaching center, students from Simmons College and from the Garland School of Homemaking being assigned to the work of the clinic as part of their course of instruction. The cooperation of the Dietetic Bureau of the League for Preventive Work has been of much assistance."

*An article on the work of the Boston Dispensary entitled "Food Clinic of Boston Dispensary Meets Everyday Need," by Bertha Wood, Dietitian, Boston Dispensary, appeared in the January issue of THE MODERN HOSPITAL.

CHILD WELFARE BUREAU IN BELGIUM

A national children's bureau has been recently established in Belgium the functions of which are to "encourage and develop the protection of childhood, and especially to further education with regard to rules of child hygiene and to assist in their application, whether in families or in public child-caring institutions; to promote the organization of agencies interested in child hygiene, and to assist them by subsidies or otherwise; to assure supervision by the administrative authorities and physicians over the agencies thus protected."

A board of forty members has the decision on all questions of child protection, functions of the subsidized agencies, and disposal of funds. Provincial committees are to be established in each province to aid the bureau in its work. In addition, local committees are to see that school meals are distributed and special food provided for anemic children. The cost of the school lunches will be met one-half by the State, one-fourth by the community, and one-fourth by the province. The infant consultation centers must, among other duties, provide for free physical examination of all children under the age of three in families under the care of the centers; for organization of free medical consultation for expectant mothers; and organization of educational work to emphasize the value of infant hygiene and breast feeding.

GERMAN NURSING PROGRAM

It appears from German nursing papers that the nursing world in that country is busy setting its house in order. The German Union of Nurses has been considering reorganization, and urges the establishment by the State of training schools for nurses. It considers that it should not be left, as hitherto, for isolated hospital boards to give a more or less efficient training, but that regulations as to training should be laid down by the State for both lay and religious nurses. The Union demands a proper curriculum with hospital experience, a sound school education for probationers, good moral character and health, a three years' course with an examination at the end, an employment bureau attached to each training school, and compulsory post-graduate courses every two or three years, in order to keep the nurses up-to-date. It suggests that training schools be established in all large hospitals with at least 300 beds, and that smaller hospitals should affiliate for the purpose of training; that, in addition to ward work, lectures should be given from three to five and from eight to nine every day except Saturday and Sunday, and that in her third year the probationer should be given responsibility in the ward. It is pointed out that since 1751 midwives have had a proper training and compulsory post-graduate courses, and that nursing is far behind in this respect with its present one-year training.—Nursing Times.

NURSE-TRAINING IN FRENCH HOSPITALS

A bill is to be brought forward in the Chamber of Deputies for the reorganization of hospitals in France. It is freely acknowledged that in matters of health and nursing France is far behind other countries, and the hospitals, even in the large towns, have not the equipment demanded by the doctors. The bill is said to have the support of most of the members of the medical profession in the country. Should the bill become law one of the immediate results should be an increase of training schools for nurses in France, which at present are negligible, with the exception of Paris and Bordeaux.—The Nursing Mirror.

DIETETICS AND INSTITUTIONAL FOOD SERVICE

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ABRIDGED DIETARY CALCULATIONS FOR RATIONS IN QUANTITY

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Expert control is more and more in vogue wherever materials of any kind are used in quantity. In large plants chemists are employed to give definite information as to real values of the materials used; even the coal for the boilers is analyzed. Similarly, there is an increasing demand for more definite information as to foods issued for consumption, especially in institutions. This is not only true as to quality supplied by contractors (as per specifications), but also as to quantitative nutritive values and proper selection for the maintenance of health and effectiveness in human endeavor.

In nutrition laboratories where there is necessity for very rigid control, the food material used is sampled, submitted to chemical analysis, and from the laboratory findings the energy values calculated. Such procedure is very expensive and time-consuming. But we have at hand in our chemical literature an enormous mass of data as to the composition of foods and this information is made conveniently available by tables.* By means of these tables the practical nutritionist can get a very close approximation of the fuel value of a dietary or any known lot of assorted foods, provided he is furnished with reliable weights of the materials. These calculations, while relatively simple, are disconcertingly laborious. Having much of this sort of labor to perform the writer sought a more rapid method of calculation. From a chance suggestion in a letter from another Nutrition Officer in the Army, a scheme was evolved which the writer used in criticising army dietaries. Afterwards this suggestion was traced to a paper by Miss Caroline Hunt,** and the two schemes are alike in respect to the use of factors for calculating total calories from weight in pounds and corrections of weight to bring foods to a basis of weight equivalence with respect to total calories. Miss Hunt claims that her method will give results within ten per cent of the ordinary calculations, and she is fully justified in her claim, as is shown by a comparison of methods in Table VII.

In the author's scheme, foods are grouped with a view to a critical study of the proportions of different dietary essentials in the ration. All foods are divided into seven classes based on similarity in composition and nutritional function, and these classes are further divided into groups on a basis of likeness in chemical composition. There are thirty-three such groups.***

For each class there is a set of type factors for (1) total calories, (2) protein calories, (3) fat calories. The total weight of the foods in each class, multiplied by each of these factors, gives the respective totals for each class. These factors have been calculated, by methods to be detailed later, from averages of analyses which in the writer's opinion are most trustworthy,**** and are given in tabular form below:

Table I
Type Class Factors

CLASS		TOTAL CALORIES	PROTEIN CALORIES	FAT CALORIES
I	Cereals and Cereal Products....	1620	210	40
II	Dry Legumes and Shelled Nuts	1580	400	70
III	Vegetables and Fruits.....	300	30	...
IV	Exclusively Carbohydrate Food	1800	...	...
V	Exclusively Fat Food.....	3500	...	3500
VI	Foods Rich in Fat and Protein.	315	60	160
VII	Animal Foods not Included in V and VI	600	300	350

Correctional Factors to Render Weights of Groups Equivalent to One Another

The combined weights of each group within a class are multiplied by correctional factors, so as to make them conform in composition to the type, as will be explained later. These numbers consist of one digit, and, at most, one decimal (except where the fraction is in thirds or fourths), and the multiplication in the majority of cases is very easily done by inspection. When these correctional group factors have been used the type class factors are applied to the sum of the corrected group weights in each class.

Procedure in Application of Method

The procedure which the writer uses in practice may be briefly outlined as follows:

List all foods in the order of the classification in Table II.
Enter after the name of each food its weight in pounds.
Add the weights of the foods in each group.
Multiply the sums of the weights within each group by the appropriate "correctional factors" as given in Table II, and enter these corrected weights in the columns of "equivalent weights," for Total Calories, Protein Calories, and Fat Calories.
Add the "equivalent weights" of each column within each class.
Multiply each sum of these "equivalent weights" by its respective "type class factor."
Add the products of these multiplications for each column and note the three sums as Total Calories, Protein Calories, and Fat Calories.
Divide the Total Calories by the number of rations included in the period considered to give the Calories per Man per Day.
Divide the Protein Calories first by the number of rations, and then by four, to give the Grams Protein per Man per Day.
Obtain the percent of Protein Calories and Fat Calories in the Total Calories, subtract their sum from 100 to give the Carbohydrate Calories for the Ration Balance as, Protein : Fat : Carbohydrate :: _____ : _____ : _____.
Obtain the percentage distribution of the Total Calories among the seven classes for the Ration Balance as to the adequacy of nutritional essentials.

*Rose, M. S.: Laboratory Hand-Book for Dietetics, Macmillan Co. Sherman, H. C.: Food Products, Macmillan Co.
**Hunt, C.: Journal Home Economics, 10, 212-8, 1918.
***See Tables I and II.

****The data on composition were taken chiefly from the Laboratory Hand-Book for Dietetics and Food Products, and from the U. S. Dept. Agr. Bull. 28. A large number of Journal articles and Exp. Sta. Bulletins were consulted. Where an analysis diverged excessively from the mean, it was excluded.

Table II

Correctional Factors to Render Weights of Groups Equivalent to One Another

CLASS GROUP	TOTAL CALORIES	PROTEIN CALORIES	FAT CALORIES
I. Cereal and Cereal Products			
1 Wheat and wheat products	1.0	1.0	1.0
2 Rice, rye-meal and flours	1.0	0.7	0.3
3 Corn, meal and flour, corn flakes, post toasties, and similar ready-to-serve patented products, hominy, barley and buckwheat	1.0	0.7	1.4
4 Oatmeal	1.1	1.4	7.0
5 Bread	0.7	0.8	1.5
6 Bakery products:—			
a Crackers, toasted breads	1.1	0.9	8.0
b Home-made cookies and fried bakeries	2.0	0.6	20.0
c Cookies and cakes	1.0	0.6	11.0
II. Dry Legumes and Shelled Nuts			
7 a Beans, peas and lentils	1.0	1.0(1)	1.0(2)
b Baked beans	0.33	0.33	1.33
8 Shelled nuts (3)	1.7	0.9	30.0
III. Vegetables and Fruits			
9 a White potatoes	1.0	1.0	...
b Sweet potatoes	1.5	1.0	...
10 Roots	0.5	0.6	...
11 Stem and leaf types, incl. onion and mushroom	0.4	0.6	...
12 Green vegetables in pod and seed (4)	0.8	1.5	...
13 Fruit served as vegetable (e. g. squash)	0.3	0.6	...
14 Sweet fruits—a Fresh fruits	0.8	0.5	1.0
b Canned fruits	1.3	0.5	0.7
c Dried fruits	4.4	2.2	0.5
IV. Carbohydrates			
15 Sugar, candy, starch, etc.	1.0	...	...
16 Syrups, jellies, jams, preserves, etc.	0.75	...	...
V. Fats			
17 Lard, suet, vegetable oils, butter, very fat bacon and pork	1.0	...	...
18 a Less fat bacon and pork	0.7	...	...
b Separator cream and salad dressings, etc.	0.5	...	...
VI. Foods Rich in Fat and Protein			
19 Milk—fresh, whole cow's	1.0	1.0	1.0
20 Milk—evaporated	2.0	2.0	2.0
21 Milk—desiccated, cocoa, and chocolate	7.5	6.5	7.5
22 a Condensed milk	2.3	3.0	2.4
b Condensed milk—sweetened	4.7	2.6	2.1
c Gravity cream	2.7	0.7	4.5
d Ice cream	1.6	1.0	0.5
VII. Animal Products Exclusive of Whole Milk and Fats			
23 Beef, veal, liver, pigs' feet, tripe, etc.	1.0	1.0	1.0
24 Ham, pork, lean salt pork, pork, beef sausage	2.2	1.3	2.8
25 Mutton, lamb, corn beef, beef sausage	2.0	1.3	2.2
26 Sausages of fatter types than those above, fat pork and ham, bacon too lean for Class V, deviled ham, head cheese	3.0	1.3	4.0
27 Fowl (5)	1.0	1.0	1.0
27 Fresh fish, entrails removed	0.5	0.7	0.3
29 Preserved fish	1.0	1.4	1.1
30 Shell fish	0.3	0.3	0.0
31 Eggs (6)	1.0	0.6	1.0
32 Cheese	3.0	1.7	3.0
33a Milk—skimmed	0.3	0.25	0.0
b Milk—skimmed—desiccated	2.6	2.0	0.3

(1) For large amounts of kidney beans, use 1.8 for protein.
(2) For soy beans, use 6.0 for fat.
(3) Nuts are almost negligible in ordinary diets; usually deducting half the "as purchased" weight for shell will be sufficiently accurate. For chestnuts use the factors 1.1, 0.4, 4.0, in place of those given in the table if they are stored; if fresh, only half these factors.
(4) Including canned goods, e. g., peas, corn, etc.
(5) If broilers, use only half the value of these factors.
(6) If desiccated use eight times these factors.

For convenience in carrying out this procedure a form is used on which the food items are listed with places for equivalent weights and their sums within each class to be multiplied by the "type factors," also other notations convenient in the evaluation of a ration as applied to group feeding. This form is shown as Table III. (Page 489.)

Abridged Form of the Method

The underlying principle of this method may be used in the construction of any number of systems for food evaluation, the accuracy depending upon the judgment used in selecting the factors. With proper care in guarding against the influence of unusual items, the scheme, as outlined, is as accurate as the ordinary method of calculating the calories from the average percentage composition, as given in standard tables.

A condensed form of the same scheme affords a more rapid and yet a sufficiently accurate means of calculation for most problems. The directions for this abridged form are presented as Table IV.

Table IV

Abridged Form of the Method for Estimating the Calorific Values of Food in Quantity

Class I.—
a Sum of the weights of groups 1 to 4 and 6.
b Sum of the weights of group 5x0.75.
For total calories multiply the sums of *a* and *b* by 1620.
For protein calories multiply the sums of *a* and *b* by 200.
For fat calories multiply the sum *a* by 40 and *b* by 80.

Class II.—
a Sum of the weights of group 7.
b Sum of the weights of group 8x1.75.
For total calories multiply the weights of *a* and *b* by 1580.
For protein calories multiply the weights of *a* and *b* by 400.
For fat calories multiply the sum *a* by 80 and *b* by 2400.
(If there are many chestnuts present calculate these separately. If there are canned baked beans present add one-third their weight to *a* before multiplying for fat calories.)

Class III.—
a Sum of the weights of groups 9 and 14b 300
b Sum of the weights of groups 10, 11 and 13 130
c Sum of the weights of groups 12 and 14a 240
d Sum of the weight of group 14c 1250
Multiply the sums of each, *a*, *b*, *c*, and *d*, by the numbers listed opposite each and add the products for total calories. For protein calories take one-tenth this value. The fat is negligible.

Class IV.—
The sum of the weights of group 15 plus three-fourths of the weights of group 16 multiplied by 1800 gives the total calories. Protein and fat negligible.

Class V.—
The sum of the weights of group 17 plus three-fourths of the weight of group 18 multiplied by 3500 gives total and fat calories. The protein calories are negligible. If separator cream is used add one-half its weight to group 17.

Class VI.—
a Sum of the weights of groups 19 and 33a.*
b Two times the sum of the weights of groups 20 and 22a.
c Seven times the weights of group 21.
(If groups 22c and 22a are present, calculate these separately.)
For total calories multiply the sums of *a*, *b*, and *c* by 315.
For protein calories multiply the same by 60.
For fat calories multiply the same by 160, excluding 33a.

Class VII.—
Add the weights of all the groups in this class, excluding fluid skim milk, and multiply by 900 for total calories, by 300 for protein calories, and by 400 for fat calories.

See Table II for classification. In this abridged form, skim milk is treated under class VI.

Practical Illustrations

A practical problem worked out in detail is given below by way of illustration. This is an army ration, the foods of which were weighed under the writer's general supervision and calculated to a basis of 800 men for ten days, or 8,000 rations. (They were taken from eight several messes.) The foods with weights for each are listed as Table V. The calculations of the first class from this dietary are given in detail in Table VI, both by the full and abridged forms of the method, as well as by the ordinary method of calculating each food separately from its recorded chemical composition.

Having made a representative list of over two hundred common food materials (which more than covers the variety of an ordinary dietary), and arranged these by classes, as already indicated, there was obtained for each

food in the class, by suitable weighting, factors for protein, fat, and total calories. The weighting was based on frequency of occurrence of the food in the ordinary diet and was applied to average analyses in which extremes of variations were excluded. Food materials were estimated "as purchased," the most convenient and generally the most reliable method for getting weights of food in quantity. The usual factors for fuel value, four calories per gram for protein and carbohydrate and nine calories for fats, were employed.

After factors had been obtained for each food material, so that by simple multiplication of any given weight of the food by these, total calories, protein calories, and fat calories could be correctly obtained, it was possible to foods in the army messes, and calculating the number of calories supplied by the maximum and minimum per cent of carbohydrate, we get the following figures:

	Pounds	Per Cent Carbohydrate	Calories Minimum	Maximum
Wheat flour	1633	73 -75.6	2,162,928	2,239,964
Farina	230	74.6-78.5	311,820	327,599
Rice	833	75.6-81.9	1,139,592	1,101,809
Corn meal	283	71.9-75.4	369,188	387,160
Oat meal	321	63.8-70.2	371,590	408,858
			4,355,118	4,465,390

We have in the carbohydrates of these four groups more than twelve per cent of the total available energy supplied by the 8,000 ration list, and they differ by 110,272 calories or 2.5 per cent. These maximum and minimum figures are

Table III—Form for Calculation and Record

ORGANIZATION..... Number of rations.....1705 Date.....

Class	Group	ITEMS	POUNDS	EQUIVALENT WEIGHT(1) TOTAL	PROT.	FAT
I	1	Wheat flour	833.5			
		Cream of wheat	91.7	924	924	924
	2	Rice	28.6	29	29	9
	3	Corn meal	64.0			
		Hominy	22.7			
		Corn flakes	12.0	99	69	139
	4	Oatmeal	111.2	122	156	778
	5	Rolls	80.0	56	64	208
II	7	Navy beans	62.5			
		Peas	24.0	87	87	87
		Etc.	etc.	etc.	etc.	etc.

CLASS	WEIGHT	TYPE FACTOR	CALORIES
	TOTAL CALORIES		
I	1230	1620	2,092,600
II	87	1580	137,460
III	2062	300	618,600
IV	244	1800	439,200
V	107	3500	374,500
VI	792	315	249,480
VII	1953	600	1,171,800
			5,083,640
	Protein Calories		
I	1233	210	258,930
II	87	400	34,800
III	1985	30	58,550
VI	736	60	44,160
VII	1747	300	524,100
			920,540
	Fat Calories		
I	2058	40	82,320
II	87	70	6,090
V	107	3500	374,500
VI	740	160	120,400
VII	1848	350	647,700
			1,231,010

Calories per man per day(2) 2,990
Protein, grams per man per day(3) 135
Ration Balance:(4)
(a) Prot: Fat: Carb: 16: 24: 60
(b) Calorie distribution—

I	41	IV	9
II	2	V	8
III	12	VI	5
(1119)	7	VII	23

Number commodities used 33
Number full portions in ten day period:
Potatoes..... Roots.....
Stem-leaf..... Fruit.....
Fresh fruit .. Meats.....
Percent protein from meat(5) 54.7
Adequacy of ration as to:
Fuel..... Vitamins. ..
Ash..... Fiber.....
Fruit acids...
REMARKS:

(1) Sum of weights of groups multiplied by factors from Table II.
(2) Divide the sum of total calories by the number of rations.
(3) Divide the sum of protein calories by the number of rations and then divide by 4.
(4) (a) Per cent the carbohydrate calories derived by difference. (b) Per cents of total calories in each class.
(5) Groups 23 to 29, inclusive.

further shorten the operations by selecting a simple set of factors for all the foods within a group, and then choosing one set of group factors as "type class factors." A list of these "type class factors" is given in Table I. To make all the groups conform to the "type class factor," a system of "correctional factors" is introduced. These correctional factors have been obtained by dividing the factors of each group by the "type factor" of its respective class. In practice the combined weights of the foods in a group are first multiplied by "correctional group factors." The "correctional group factors" are given in Table II.

As a criterion of the permissible limits of error we may take the first four groups. Using the weights of the rational (extremes being excluded) and the foods used may fall at any point in this range, if analyzed. The natural products of classes IV and V would give smaller difference, but all the other classes would give a very much larger range. It is on the basis of this wide range in reported chemical analyses that the statement was made above that the scheme, as outlined, is as accurate as the more lengthy procedure of calculating from the percentage composition of each individual food stuff. To be more accurate the assistance of a laboratory must be called in. Because of the high probability of compensation in errors, the method becomes as accurate as the majority of cases will require, and is within three or four per cent of the abso-

Table V

Foods of the Problem Listed as Required by the Method

Class	Group		Pounds	Class	Group		Pounds	Class	Group		Pounds
I	1	Flour	1633	III		Spinach	110	IV	15	Sugar	1856
		Farina	229			Celery	30			Starch	83
		Shredded wheat	102			Lettuce	43			Tapioca	16
		Puffed wheat	4		12	String beans	267		16	Syrup	977
		Macaroni	122			Peas	390			Jelly	11
	2	Rice	833			Corn	320			Jam	141
	3	Corn meal	283		13	Tomatoes	181			Apple butter	114
		Corn flakes	89			Tomatoes canned	838	V	17	Lard	642
		Corn hominy	9			Pumpkin	270			Olive oil	3
		Post toasties	124			Peppers	33			Oleo	160
		Grape nuts	8		14a	Apples	1149			Butter	390
	4	Oatmeal	321			Cranberries	18			Bacon	266
	5	Bread	4353			Bananas	223		18	Salad dressing	3
	6a	Crackers	71			Oranges	97	VI	20	Milk	1693
	c	Cookies	12			Lemons	102		21	Cocoa	68
II	7	Beans	255			Grape fruit	70			Chocolate	17
		Beans, lima	50		b	Peaches	398		22d	Ice cream	201
	8	Cocoanut	9			Apricots	125	VII	23	Beef	2394
III	9a	Potatoes	6370			Cherries	31			Veal	425
	b	Potatoes, sweet	124			Pears	85			Liver	232
	10	Carrots	145			Pineapple	250		24	Ham	1247
		Beets	47		c	Apples	318			Pork	215
		Turnips	52			Apricots	39			Sausage	147
	11	Cabbage	361			Blackberries	39		25	Sausage	113
		Cabbage kraut	94			Peaches	18		26	Sausage	61
		Onion	238			Prunes	119		28	Fish	121
						Raisins	43		31	Eggs	558
									32	Cheese	79

lute value whenever the list of foods is that of a common dietary.

As the arithmetic is abridged there must be increased care to avoid the vitiating influence of large proportions of unusual foods. The above scheme could be placed in the hands of an office clerk without training in nutrition, as a routine proposition. The factors used in the arithmetic are chosen to compensate errors on the basis of the usual American dietary habits, and if large proportions of materials are introduced which are at variance with our table experience, as for instance, more crackers than bread or more salad dressing than butter, such exceptional quantities should be lifted out of the scheme, each one calculated separately, and added each to its proper class. Also it is sometimes expedient to resolve prepared foods into their component parts, and distribute the weights of these among the groups where they properly belong.

There are many staple dishes which it is often convenient to include directly in such a scheme, rather than to make estimates of the raw materials which they contain, as for example, ice cream, and bakery goods. Bread and crackers are well standardized and have been regularly included (as groups 5 and 6b). Cookies and cakes (groups 6b and 6c) are represented by a very large number of analyses and by the exclusion of only about half a dozen of these have been brought to within seven per cent of the mean analyses, so that we are justified in including them in the scheme. In regard to pies, which vary tremendously, the writer has assumed that the crust comes within the range of cookies, and that the amount of filling in a serving is equivalent to three-fourths of the same when served as a fruit or pudding.

At the present time, it is impossible to fix a standard for canned goods. If the groups 12, 13, and 14 should yield as much as a tenth of the calories this sort of evaluation would be inaccurate, but they probably never yield more than five per cent in practical dietetics. By no reasonable selection can the canned goods be crowded within a range of ten per cent of the mean, and no selection was therefore made, but an average struck on all analyses that came to the notice of the writer. In some vegetables the different brands vary over fifty per cent, often due to a variation of from ten to thirty per cent in the liquid. The fruits have different amounts of added sugar.

The fats as calculated by this scheme, are lower than the calculations made directly on individual analysis, but compared with their probable consumption they are still considered rather high. Much of this fat is removed in food preparation, more at the table, and the fat used in frying is subject to large waste.

The problem chosen to illustrate this method in this article has also been calculated in the usual way from the percentage composition as given in our best tables, also by the quick method proposed by Miss Hunt. The results of these various methods are given in Table VII. It will be noted that the results come within the range of variations noted for the carbohydrates in the first four groups. The agreement between the individual classes is not as good as the totals, which signifies but little since the probability of compensation of error is very high, and the agreement of the percentage distribution of the calories in the classes (which is a feature of the method), is excellent. The protein figures are sufficiently close to give the "balance of ration," and the grams per man per day, which are the only objects of calculating them. The fat figures are a secondary consideration and come within reasonable range for striking the ration balance.

The calculations of food allowance by the foregoing method, tells us, first of all, the total energy value of the materials considered, which, divided by the number of rations, gives us the total calories per day for each person. The protein calories from these same materials, divided by the number of rations and then by four, gives us the grams of protein available per man per day. The fat calories also being determined, it becomes a simple matter to get the "balance of the ration," which is percentage distribution of the calories as to protein, fat, and carbohydrate, the last being arrived at by subtraction. Before the more recent work in nutrition had come so prominently to the front these were the sole considerations in dietary criticisms. For dietary standards the reader is referred to approved text books on the subject.*

By the method under discussion, we can introduce a second "balance of ration," a percentage of distribution of the calories among classes of foods as shown in Table VII, and have a simple method of judging the adequacy of the dietary in regard to the essentials not included in the foregoing paragraph. It is now considered important to have the protein from various sources so that the

different kinds of these will adequately supplement one another. Information on this point is concretely presented by this method. The adequacy of calcium is determined largely by the percentage of milk calories (Class VI), that of iron and ash generally by fruits and vegetables (Class III). The quantities in Classes III and VI also indicate the probable sufficiency of the vitamines.

	Army Mess	Work-house**
I Cereals and breadstuffs	35.2	45.5
II Beans and peas	1.5	6.5
III Vegetables and fruits	12.2	11.9
(9a Potatoes)	(5.5)	(7.0)
IV Sugars, syrups, etc	16.2	5.0
V Fats	15.9	6.3
VI Milk and cocoa	14.7	2.5
VII Meats	4.3	20.0

There are other practical considerations which determine amounts of different food groups in the dietary, such as variety, laxative properties, and general adaptation to the particular group of people for whom the ration is provided. (The percentage distribution of the calories in two dietaries is shown below:)

In inspecting such a summary as the above, we should have in mind: that the emphasis of Classes I and II tends to economy; that of Classes V and VII to high cost; slighting Class VI means a probable deficiency in calcium; in slighting Class III there will be danger of not supplying enough iron; Classes III and VI should both be relied on to insure adequate vitamines. An excess of Class IV depresses the consumption of foods which, though of lower calorific value, are absolutely necessary for their ash elements and vitamines. From study of diets which have

Table VI

A Comparison of the Volume of Work Involved in Computing the Calorific Values of Foods by the Three Methods, Using the First Class Food Materials Listed in Table V

A. USUAL METHOD OF CALCULATING INDIVIDUAL ITEMS

Group and Food Materials	Food Weight Pounds	TOTAL		PROTEIN		FAT	
		Factor	Calories	Factor	Calories	Factor	Calories
1 Wheat flour	1633	1620	2617700	203	331500	41	66953
Cream of wheat	229	1641	375870	200	45800	48	10992
Puffed wheat	4	1656	6624	220	880	44	176
Shredded wheat	102	1628	166056	220	22440	74	7548
Macaroni	122	1626	198372	227	27694	41	5002
Total pounds in group 1	2090						
2 Rice	833	1580	1324470	146	121615	13	10829
3 Corn meal	283	1630	461290	167	47261	78	22074
Corn flakes	89	1631	145159	101	8989	54	4806
Corn hominy	9	1609	14474	151	1359	25	225
Post toasties	124	1637	202988	92	11409	81	10044
Grape nuts	8	1765	14120	248	1984	205	1640
Total pounds in group 3	513						
4 Oatmeal	321	1803	578763	303	97363	298	95658
5 Bread	4353	1184	1151395	170	740010	53	230709
6a Crackers	71	1863	132202	187	13277	358	25418
b Cookies	12	1527	18324	128	1536	395	4740
CALORIES IN CLASS I			11409782		1473016		496726

B. NEW METHOD, FULL FORM

Group	Weight Pounds	EQUIVALENT WEIGHTS FOR TOTAL		PROTEIN		FAT	
		Cor. F. †	Pounds	Cor. F. †	Pounds	Cor. F. †	Pounds
1	2090	1.0	2090	1.0	2090	1.0	2090
2	833	1.0	833	0.7††	583	0.3	250
3	513	1.0	513	0.7††	359	1.5††	770
4	321	1.1†	353	1.4	449	7.5	2397
5	4353	0.7	3047	0.8	3482	1.5††	6530
6a	71	1.1††	80	0.9	62	8.0	568
b	12	1.2	14	0.6	7	20	240
Sum. of equiv.weights			6930		7024		12845
Type factors			1620		210		40
Calories in class I			11226600		1475040		513800

C. NEW METHOD, ABRIDGED FORM

Class I — Pounds

a Groups 1 to 4 and 6 3830

b Group 5 × 0.75 3264

7094

Total calories ..... 7094 × 1620 = 11,492,280

Protein calories ..... 7094 × 200 = 1,418,800

Fat calories a, 3830 × 40 = 153200

b, 3264 × 80 = **261120** 414,320

*The best reference in this field of science is Chemistry of Food and Nutrition, Sherman, H. C., Macmillan Co.

**From a correctional institution in the Middle West whose dietary is being revised after an analysis like that described in this article.

†Correctional factor.

††In practice the weights of items with repeating correctional factors are added and a single multiplication made.

Table VII

Comparisons of Calculations on the 8,000 Army Rations

	NEW METHOD		Usual Method of Individual Calculation	Miss Hunt's Quick Method
	Full Form	Abridged Form		
Total calories*.....	32090	32756	32641	32016
Protein calories*.....	3999	3904	3979	2962
Fat calories*.....	7794	8785		
Difference from first column.				
Total calories in pct...	0.0	2.1	1.7	0.25
Prot. calories in pct...	0.0	2.4	0.4	8.7
Balance of ration:				
a{Prot: Fat: Carb....	12:24:64	12:27:61		
b{By Class.....I	35.2	35.4	34.9	
II	1.5	1.5	1.5	
III	12.2	11.8	12.3	
IV	16.2	15.8	15.9	
V	15.9	15.5	15.8	
VI	4.3	3.8	4.3	
VII	14.7	15.3	15.1	
Per man per day,				
Calories.....	4000	4100	4000	4000
Grams Protein.....	125	122	121	93

*In numbers running into million, the first three digits are omitted.

proven thoroughly satisfactory, and such works as the "Adequacy and Economy of Some City Dietaries," and the "New York Police Squad Diets," the following are considered a good criterion for a satisfactory ration, so far as can be determined by this method.

Table VIII

CLASS	PER CENT OF TOTAL CALORIES	PERMISSIBLE MAXIMUM	RANGE MINIMUM
I	35	45	33
II	3	4	2
III	15	18	15
IV	9	10	8
V	8	9	6
VI	8	10	5
VII	22	25	20
(III 9a)	(7)	(10)	(5)

NEWS NOTES

A fund of $600 is again available for a fellowship or fellowships in Home Economics at the University of Chicago. Applications, with recommendations, should be in the hands of the chairman of the Home Economics Department before June 15. The graduate work may be done along any line of Home Economics. Students who have already done some graduate work will be preferred in granting the fellowships.

The social worker or the teacher impressed by the urgent need of improving the health of children will be interested in the experiment to be tried at the University of Chicago this summer. A group of underweight children will serve as a Child Health School to demonstrate methods of teaching health to children, both in the special nutrition class and through the regular school channels such as the physical training class, the cooking class, the hygiene lesson, the medical examination, the school lunch, and the general school teaching. The university students observing and working in the school will be home economics students and elementary and high school teachers who feel the need of better health teaching in their own classes, and social workers who have constant demand for health knowledge for the children in their care. Miss Lydia V. Roberts will be director of the school and Dr. Hoffman of Rush Medical School and Dr. Dorothy Reed Mendenhall of the U. S. Children's Bureau will serve as medical advisers. Work will begin on June 21.

The Dietitians' Section of the Home Economic Association of Philadelphia held its regular monthly meeting April 15 at the Pennsylvania Hospital, Eighth and Spruce Streets. The following program was presented, giving the viewpoint of graduates of Student Dietitians' Courses who have since entered various lines of dietetic work:

"Specializing in Dietetics for Children," Miss Edith Sullivan, Children's Homeopathic Hospital, Philadelphia.

"Organizing Courses for Student Dietitians," Miss Helen Markley, Cooper Hospital, Camden, N. J.

"The Management of a Tea Room," Miss Agnes Hawk, Penn Cottage, Wynnewood, Pa.; Miss Helen Shepardson, Bide-a-Wee Tea Room, 216 Old York Road, Jenkintown, Pa.

"The Dietitian in a Naval Hospital," Miss Margaret Posetes, U. S. Naval Hospital, League Island, Philadelphia, Pa.

"The Management of a High School Lunch Room," Miss Olive Gross, Kensington High School, Philadelphia.

"Managing a Hotel Diet Kitchen," Miss Helen Chase, Galen Hall, Atlantic City, N. J.

"Supervising the Dietary in a Contagious Disease Hospital," Miss Mary Reed, Philadelphia Hospital for Contagious Disease, Philadelphia, Pa.

"The Management of a Government Cafeteria," Miss Nora Yost, formerly of Government Cafeteria, Washington, D. C., Pennsylvania Hospital for Insane, Forty-ninth and Market Streets, Philadelphia.

"The Assistant Dietitian in a Large City Hospital," Miss Lucille Teed, assistant resident dietitian, Philadelphia General Hospital, Philadelphia.

"The Management of a College Common," Miss Emily B. Hall, Delaware College Commons, Newark, Del.

Miss Bess Tews has accepted a postion as dietitian in the Montefiore Home and Hospital, New York City. Miss Tews took student dietitian training with Miss Geraghty and later was at Kings County Hospital, Brooklyn.

Miss Irene Enders recently left Western Pennsylvania Hospital, Pittsburgh, where she has been assistant dietitian, to become dietitian in the McKeesport Hospital, McKeesport, Pa.

Miss Margaret Fotheringham of Buffalo, N. Y., is dietitian in the metabolism ward of Mercy Hospital, Pittsburgh.

The Dietitians' Section of the H.E.A. of Philadelphia held its regular annual meeting, Saturday, May 1, at the Woman's Homeopathic Hospital. The Executive Committee for the coming year was appointed as follows: Chairman, Mrs. Jennie M. Fuller, Pennsylvania Hospital, Philadelphia, Pa.; secretary, Miss Inez Griffin, Children's Homeopathic Hospital, Philadelphia, Pa.; treasurer, Miss Meta Reese, Methodist Episcopal Hospital, Philadelphia, Pa.; Mrs. Emma Smedley, director school luncheons, Philadelphia, Pa.; Mrs. Gwendolyn Hubbard, social service department, Children's Hospital of Philadelphia.

After the business meeting refreshments were served by Miss Euphemia Cameron, resident dietitian, Woman's Homeopathic Hospital, Philadelphia, Pa.

A new and more glorious gift of power compensates for each worthy expenditure, so that it is by work that man carves his way to that measure of power which will fit him for his destiny, and leave him nearest God.—Holland.

HEALTH AND MODERN INDUSTRY

Conducted by BARROW B. LYONS
15 Fort Washington Avenue, New York City

THE GROUP INDUSTRIAL SURGICAL HOSPITAL

A. MONCRIEFF CARR, M.D., U.S.P.H.S., Philadelphia, Pa.

By a "group industrial hospital" is meant a hospital serving a large or small group of industries, preferably of the same type. Few single industries can afford to maintain establishments and employ the best surgical personnel and necessary skilled help required for adequate service. So we have a few larger industries fairly well served, and the innumerable smaller miscellaneous industries, not being able to secure the best surgical skill or hospital care because of expense of maintenance, have to take what they can get, to the detriment of the injured.

At present the great mass of the injured are treated in general hospitals and no special care is given. The injured man is seen by the "visiting" or by the plant physician, and administered to by the intern, whose treatment is largely that of experimentation. Very often the visiting surgeon is a general surgeon and knows little of modern bone surgery or other industrial surgery, and nothing at all of industrial relations. The nurses are pupils and cannot appreciate the problem of the injured worker. From a personal experience, as chief resident in a hospital of a large manufacturing center, I know that it was a common thing among the staff and nurses to regard the industrial case as a nuisance.

A reasonable and practical solution of the problem would seem, a central hospital, with outlying dressing or emergency stations, organized for prompt, efficient service, serving a group of industries, emergency and surgical, cooperative and follow-up, reconstruction and rehabilitation service, with a selected, trained personnel, developed on a unit system for the special needs of the group, should be features of the hospital.

In connection with the planning of a central hospital, the importance of an industrial survey of the industrial group should be emphasized. Types of accidents should be estimated, comparison made with other groups, so that an intelligent plan may be perfected. For instance, a survey of New York's lower west side would reveal an immense amount of shipping, which spells serious accidents and infections; the congestion of traffic points to the need of establishing a central "base hospital" with outlying "dressing stations" on the "front line."

Before the various departments of the hospital are taken up in detail, it is well to call attention to the keynote of success in the salvation of the industrial cripple. This may be summed up in the term "personnel." Readers will perhaps tire of the seemingly unnecessary description of the requirements of the chiefs of the departments, herein recorded, but, heretofore, too little attention has been paid to the personal characteristics essential in the specialty of industrial surgery.

The chief surgeon is first an industrial surgeon, and, preferably, one who has had experience in modern war surgery, which will enable him to fully appreciate aftercare, aside from the actual surgery done. As the military commander studies the daily life of the soldier, so should the industrial surgeon be thoroughly conversant with industrial relations. It is strongly urged that the man selected for the key position of chief surgeon be a socially minded young man of executive ability, whose reputation as a surgeon can be proved by his record of successful cases. His assistants should be chosen as much for their ability to cooperate as for their natural talent and experience.

The industrial nurse should be a graduate, and not a probationer or even a pupil; neither of the latter has had sufficient experience either of life or industrial work to appreciate the workers' problem, or to realize its importance. Some will immediately say that graduates will not do ward work. Yes they will, if properly paid!

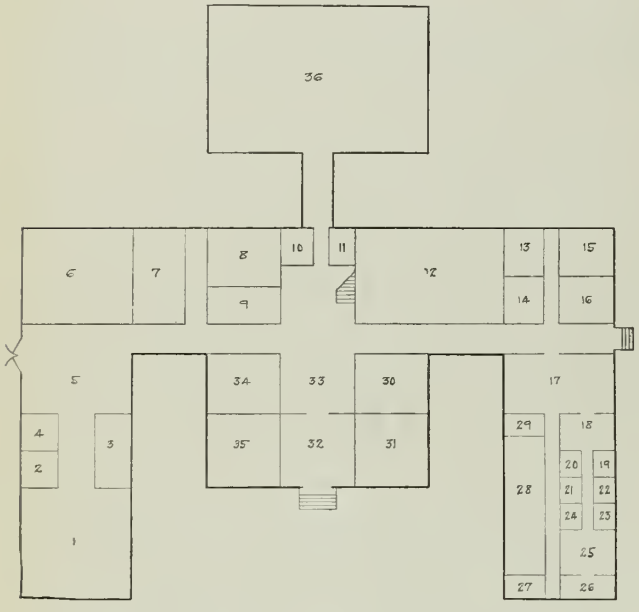
Lastly comes the question of salaries, and one of the most uncertain. It is fair, however, to say that the salaries paid to full-time men should compare favorably with other business. A surgeon who nets $15,000 a year in practice could not be asked to accept less as chief surgeon; his assistants would be paid according to ability, experience, and responsibility. Nurses' salaries should be proportionate to that paid in private work, modified by the fact that the employment is steady.

It is the purpose of the following plans and accompanying diagrams to suggest a workable basis which can be modified, or added to, according to the community's needs. However, the need of a change from the usual type of general hospital, as now established, to one that more nearly fits the need of an industrial group, is indicated. What is omitted in the written description, such as office equipment and arrangement, is indicated in the diagrams; detail is left to those concerned in the final perfecting of such a hospital, the plans presented here being suggestive only. The departments are taken up in order of their importance and logical sequence, from the admission of the patient as "a case" to his departure as a well man.

The receiving department is the reception room of the injured man's home for the period of his disability. The majority of receiving rooms, even in the modern hospitals, have a gloomy and depressing atmosphere, aside from the architecture, and the patient's first impression of gloom is often lasting. From the time the case is taken from the ambulance or seen by the admitting physician until he is sent home, he should be made to feel that the best that can be done is being done, in the most efficient manner, with courtesy and kindness. No physician or nurse that has not been trained in receiving ward work

has any business in this most important department; and only those who have tact in dealing with working people should be in charge here.

The record system should have brevity as its symbol; only essentials should be put down. The special dispensary card should have the following essential facts recorded: name, address, home and factory, nearest kin, social state, name of foreman, occupation, time of accident, provisional diagnosis and temporary treatment. This



First Floor, Group Industrial Surgical Hospital. 1. Disposition or observation ward. 2. Ward toilet and bath. 3. Patients' property. 4. Admission baths. 5. Admitting room. 6. Dressing room and records. 7. Apparatus repair and splint shop. 8. Ward and operating room supplies. 9. Pharmacy. 10. Bed elevator. 11. Passenger elevator. 12. Offices for chief of follow-up and three assistants. 13. Genito-urinary clinic. 14. Ear, nose and throat clinic. 15. Dental clinic. 16. Eye clinic. 17. Waiting room. 18. History room. 19 to 24. Dressing rooms, (men's). 25. Examining physician. 26. Laboratory. 27 and 29. Toilets. 28. Women's examining department. 30 and 34. Clerical force. 31. Conference room. 35. Record room. 32. Information and telephone. 33. Waiting room. 36. Engine room and kitchen.

card should be sent to the ward with the patient, with the additional data of: bath given, property listed, tetanus antitoxin administered, and statement as to whether the case is infected or clean.

Receiving Department Work Important

In the arrangement of space in most general hospitals, little or no attention has been paid to doctors' or nurses' suggestions as to the convenience or even necessity of proper apparatus in proper places, or of space for turning corners, or adequate lighting. Heretofore an architect has been asked to draw a plan based on his knowledge of previous plans, and he has often disregarded suggestions made by those most concerned in the future service of the building. Many hospitals have a receiving department seemingly as an afterthought—at least so it seems from the appearance of some of them. It is suggested that this department be given consideration worthy of its place.

With the chief surgeon a full-time man, it would seem possible to have him see immediately the cases brought to the hospital direct, or sent in by outlying stations, and pass judgment on the further disposition of the patient, as to proper ward placement and initial treatment. A ward of sufficient size to meet emergency needs should be established in connection with the receiving department. As it is now in most general hospitals, the "case" is seen by the intern, and the most frequent expression heard is: "I guess we'll put him in such and such ward." Sometimes it has been half a day or whole day before the chief surgeon has seen him. The routine of this department should be carefully and minutely outlined, with no openings for mistakes. Lastly, a routine administration of tetanus antitoxin should be a steel-bound rule, neglect of which should mean immediate dismissal, as it meant court-martial in the Army overseas.

It would be an insult to present-day knowledge not to include in such a program a department for pre-employment and periodic physical examinations. The arrangement of examining, waiting, dressing, and record rooms should be such as to enable one doctor and attendant to examine a reasonable number of applicants in a short time. If the amount of this work proved to be very great, a full-time examiner would be required, and for the best results it has been found that better records are made by one doing this work exclusively, instead of by members of the staff taking turns at it. In this department could be placed any special clinics, *i. e.*, eye, ear, nose and throat, genito-urinary, and dental, as indicated by the survey, and the policy of the management.

Ambulance Service

It would be good for every ambulance surgeon and driver to ride in an ambulance—as a patient! The longer the ride, the sooner would be brought about the necessary reform of almost every present ambulance service. Most ambulances are driven as if the patient were on a joy ride, and the pavement of glass instead of cobbles and trolley bunkers. The present qualifications of the usual driver are knowledge of streets, and experience (of a kind) in driving. It is maintained, however, that every hospital should be equipped with up-to-date and comfortable ambulances and should employ a personnel trained in handling sick people. If there are outlying stations there should be an ambulance to serve each one, supplementing the central service.

The Surgical Department

In considering this department, one cannot get much further than principles. The scope of industrial surgery is largely fracture work, repair of large wounds, which includes nerve and tendon injury, or a combination of all these.

A well known, successful industrial surgeon, who was also a chief surgeon, stated, when the question of infection, the bane of the operator, came up, that he had had extremely few infections in fifteen years of experience. He said the reason for his success was partially due to his constantly keeping in mind the maxim of that master mind and hand, John B. Murphy, that the way to prevent infection was to keep away from infection.

At any rate, the thought seemed a good one, and from it comes the idea of separate operating rooms for infected cases and clean cases, respectively; and, by separate is meant operating room itself, sterilizing room, supplies, instruments, anesthetizing room, scrub-up room, etc.

The size, arrangement, equipment, operating routine, cannot be given space here, but there are a few salient points regarding surgical equipment that would aid in making things run smoothly:

Having two full sets of surgical instruments; two teams of surgical nurses; anesthetizing on the operating table; swinging doors done away with, and electrically operated sliding doors substituted; bacteriological tests made routinely for slips in surgical routine; bacteriological tests in

sterile routine of gauze, sutures, etc.; location of operating rooms convenient to wards, and heated passage to and from operating room and ward.

In consonance with the idea of separate operating rooms for infected and clean cases, it follows that separate wards should be considered, the one for infected cases, of course, being of smaller size, allowing approximately for 60 per cent of all cases being clean, especially in the light of the modern treatment of wounds.

When a case adjudged clean develops infection, it should immediately be moved into the infected ward, and all the dressing instruments thoroughly disinfected and sterilized; the infected case should be treated as a danger to other patients. Grouping of similar cases not only is easier for the nurses, but the psychology of it, in regard to the patient-employee, is sensible; this principle could be followed with benefit throughout the entire time of hospitalization.

As to capacity, arrangement, etc., reference is made to diagrams. The ward of ten or twelve beds is easier to manage than one of twenty or twenty-four beds, which is usual even in many modern hospitals, and the work of the nurses in a small ward is more effective. This department would be incomplete without a plaster room with full anesthetic equipment; the splint and fracture apparatus room should not be attached to the ward, but should be an entirely separate room near to the repair and carpenter shop. A master carpenter or cabinet-maker, capable of making every known splint or its modification, on short notice, should be in charge. There should be an abundance of every possible appliance.

It is a question whether a solarium should be attached to each ward, or whether a solarium should be built to accommodate all the hospital cases. Certainly a smoking room, equipped with necessary amusement paraphernalia, should be a part of each ward.

Medical Wards

If the survey reveals a sufficient number of medical cases to necessitate a special ward, its construction need not differ materially from the other, except the provision of two quiet rooms. It need not be as large as the surgical wards. If there is a venereal clinic it is thought that, from an economical standpoint alone, a separate ward should be arranged for; but this depends on the policy of the management.

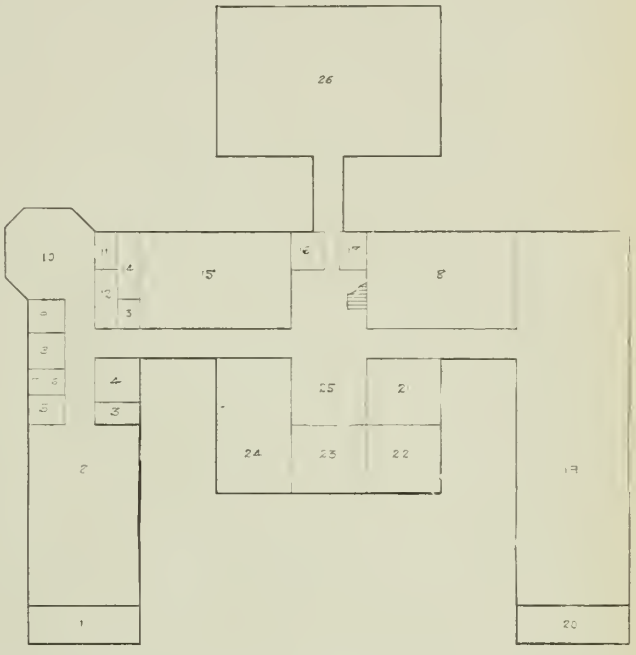
Laboratory

It would seem that laboratory work could be largely confined to bacteriological work, with necessary routine tests, when called for. Owing to the nature of the work in such a hospital, every facility for research work in bacteriology and serology should be provided as an aid to the surgeon. Emergency serums could advantageously be kept on the wards and in the receiving ward, and a stock supply in the central laboratory. A resident pathologist is pre-requisite.

X-Ray Department

It is hardly necessary to comment on this indispensable part of an industrial hospital. However, if a bedside outfit were part of the equipment, it would add considerable efficiency and obviate a great deal of delay and discomfort to the patients. More attention should be paid to progress reports in this department, leading up to a final report before the patient leaves the hospital, or perhaps a year after, for review of the case at the staff conference.

In this department comes the second stage of a man's return to work, and in most cases it is the hardest for him. It is also difficult for those who have his care. So much has been written on the psychology of the cripple and the treatment of his mental attitude during convalescence, that the reader is referred to the many articles on reconstruction published during the war. However, there are some things necessary besides mere equipment; "personal touch" might be considered the most useful

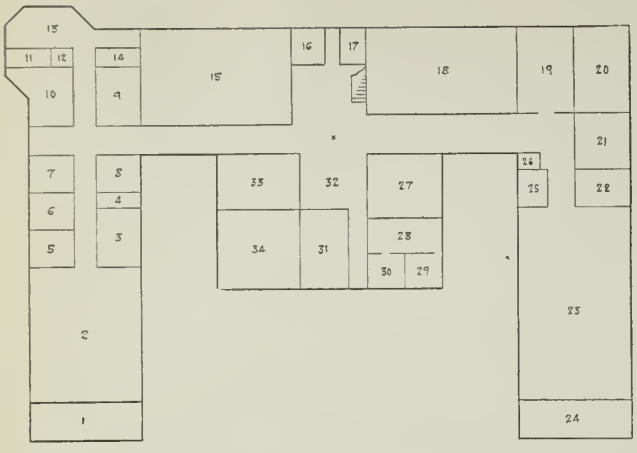


Second Floor, Group Industrial Surgical Hospital. 1. Solarium and smoking room. 2. Clean surgical ward for 12 beds. 3. Nurses records, etc. 4. Dining and serving room. 5. Ward toilet. 6. Linen room. 7. Laboratory nook. 8. Plaster room. 9. Anesthetizing room. 10. Operating room with automatic sliding doors. 11. Scrub-up. 12. Sterilizing. 13 and 14. Surgeons' smoking and dressing room. 15. X-ray and laboratory departments. 16 and 17. Elevators. 18. Offices of chief nurse and assistants and nurses' rest room. 19. Infected ward, homologous to clean ward. 20. Solarium. 21. Reference library and conference room. 22. Offices of chief surgeon and assistants. 23. Office of superintendent. 24. Case records, clerical force and bookkeeping. 25. Waiting room. 26. Dining rooms for all personnel.

asset in this department. The convalescent industrial case is as human as any, and during the period of compulsory inactivity he needs encouragement; the interest taken by someone who understands is often much appreciated. Nowhere can the convalescent receive more sympathetic encouragement to get back on the job than in this department, and the selection of a personnel under the direction of a surgeon experienced in this work should be considered of paramount importance.

The personnel should consist of one surgeon used to handling industrial workers, having fair knowledge of many of their individual jobs, and able to demonstrate the necessary treatments in each case. He should be allowed to select his own workers according to their ability, personality, and willingness to cooperate; the number of workers should be sufficient to care for easily, without haste, all the cases under consideration. Physiotherapy includes: the application of massage, electrical and manual, and of hot and cold water, baking, muscle re-education, and gymnastics.

The arrangement of the various rooms should be determined by the order of their use. Massage tables, baking apparatus, and light and whirlpool baths, with electrical attachments at each table for any necessary applications of electrical currents, can be in one room; machines and applications for muscle and gymnastics require a room by themselves. If a department of hydrotherapy



Third Floor, Group Industrial Surgical Hospital. 1. Solarium and smoking room. 2. Medical ward for eight beds. 3. Ward dining and serving room. 4. Linen closet. 5. Ward toilet. 6. Nurses' records, etc. 7 and 8. Quiet rooms. 9 and 10. Semi-private rooms. 11 and 14. Private baths. 12. Linen closet. 13. Sun parlor and smoking room. 15. Residents' quarters. 16 and 17. Elevators. 18. Gymnasium, machines, electrical apparatus. 19. Recreation and smoking room. 20. Vocational work. 21. Dining and serving room. 22. Nurses' records, etc. 23. Convalescent ward for 12 beds. 24. Porch. 25. Ward toilet. 26. Linen room. 27. Massage, whirl pool baths, plint. 28. Rest room. 29 and 30. Douche and light baths. 31. Clerical force. 33. Offices for chief of reconstruction and assistants. 34. Residence recreation.

is required, a special douche room and vapor or light bath compartment, with necessary rest room, is essential.

The card system here is most important as a progress record, and should contain: surgical history, diagnosis and proposed treatment; all measurements of motion, strength, and other notes of progress should be carefully recorded for final review at weekly or monthly conference, both by the surgeon in charge of the case and by the chief surgeon.

Commissary Department

A hungry soldier can't fight efficiently, and neither can efficient hospital work be done on an inadequate and tasteless diet. If the story of a nurse who has had eating experiences in over twenty hospitals, in twenty different States, is to be believed, then the food department in most general hospitals is very often the most poorly managed. It would be hard to put one's finger on the exact cause of the usual poor commissary existing in most hospitals today; some say graft, some inefficiency in buying, some blame the cook, and some the dietitian. One does not hear complaints about the majority of good hotel dining rooms, though the problem is about the same, minus the individual table and waiter question, and the luxury waste. Hotels manage their kitchens on a profit and loss basis, and give service accordingly; hospitals should assume this attitude, at least, and the profit would accrue from satisfied personnel and patients, besides an actual saving from efficiency.

A slight change in the usual system now existing is suggested. Heretofore, the dietitian has had full charge, even of the buying. It is proposed to put in charge a hotel-trained chef, who will have entire authority in preparing the food. By entire authority is meant no divided authority. A nurse who has had training in dietetics will consult with the chef in regard to all food for the patients, and prescribe the menu.

The need and advantage of re-training an injured workman has been shown to be an essential part of any scheme for reconstruction, by the splendid work done during and after the war, in Europe and in this country. There are numerous plans from which to choose, and their application in the group industrial hospital is easily accomplished.

A few essential principles should be considered for effective work: vocational training, either along the line of the patient's work or in some similar trade, should begin in convalescence, even before the patient is out of bed; the book and chart work can be quite easily started in the ward. Before the first week is ended, an injured man should be surveyed, an estimate made of his probable disability, and also of his capability, classification recorded, and the training offered him. It seems more reasonable to emphasize an injured man's assets rather than his liabilities, and the mental attitude of the usually discouraged cripple when guided along the proper channels, not only gives him an opportunity for a "comeback," but puts him in such an environment that he wills himself into getting well and back on the job.

There are three main classes into which most injuries fall, and in some cases the man requires re-training:

1. Fractures and sprains of upper extremities.
2. Fractures and sprains of lower extremities.
3. Contractures, nerve injuries and muscle atrophy.

There might be added another class to include medical cases. These are basic, and other disabilities can be rated under these heads for all practical purposes. After a man has had a primary training in the hospital school, there could be a system of transfer to one of the workshops of the group, where he could finish the practical work. Such a department would call for the careful supervision of the surgeon in charge of reconstruction; teaching could be done by men or women trained in such work.

Quartermasters Department

This department can be divided into two depots, one for ward, operating room, and dispensary supplies, and another for general supplies.

1. Hospital Supplies.

The chief, a pharmacist, with an assistant who is a graduate nurse, should be in charge of hospital supplies. These would include drugs, chemicals for disinfection, laboratory, ward and operating room apparatus, and other necessary material, such as raw gauze, instruments, etc.

2. General Supplies.

These would include all supplies for kitchens, laundry, office, etc. This depot should be on a strict business basis and have a thorough checking system, and managed by a storekeeper.

The Follow-Up Service, Formerly Social Service

This department should be an integral part of the hospital, and the idea of charity, so general in hospitals at present writing, done away with. The same care should be used in the selection of the personnel of this service as that of any other department, basing it on experience and training in industrial relations, personality, and enthusiasm for the work. Lastly, the chief of this section should be a member of the staff, with equal privileges. The success of a follow-up service depends more on the chief than that of almost any other department; someone who can instill the principles of welfare work into the personnel, not with the idea of charity, but of cooperation with the hospital policy. The chief should know, to speak to, every patient in the hospital, also something of his history. Every assistant down to the most insignificant clerk should be taken through the hospital and shown the work and then given an opportunity to express a willingness to abide by those principles of the work. This should be the basis for employment.

The work could be divided as follows:

1. Dispensary.
2. Wards.
3. Outside.

These are equally important. The record work would include: records of all patients, in the hospital and discharged, with a brief summary of hospital record; weekly or monthly report, if called for, of all patients discharged within one year or longer; weekly ward reports; family follow-up reports; vocational reports; employment reports.

A chief with two assistants, one for the dispensary and ward service and one for the outside work, empowered to select the remaining personnel sufficient for effective work, should be placed in charge and allowed to run the department without interference.

The record system should have brevity and simplicity as its features. One of the essentials of all follow-up work is a clear history. Also an interpreter is an absolute requirement in this country of polyglot languages, and he is not only useful in this department, but frequently is very necessary to the surgeon.

Just a word on outside work:

While working with the War Risk Insurance Bureau, it was found that a man would be willing, almost always, to go to the hospital or sanitarium, or in training at the Federal Board, provided his family was taken care of. It would seem, therefore that if, while in the hospital, an injured man knew that his compensation was paid promptly, and that his folks had enough to eat and wear, the bond of loyalty to the hospital and his employer would be strengthened; and he would, forever after, be a booster for the service. Besides this, he would be greatly encouraged to make an extra effort towards a complete and rapid recovery.

The Record System

If at all possible, a complete card system is advised, doing away with the long history and treatment sheets which continually inspire verbosity on the part of historian and nurse. The system of card index is universally satisfactory, and, in the case of a special hospital, where the history is not a part of a teaching system, it would more than prove its worth in compactness, durability, and efficiency.

In an industrial hospital most of the cases are surgical, and do not require the taking of any lengthy previous history, but, nevertheless, do require certain essential facts to make them complete. A few of them can be mentioned here:

1. How, when, and where accident happened. This should be carefully recorded, and, if necessary, corroborated by witnesses, better by the foreman.

2. Physical examination of stripped patient to include any other injury or any complication aside from chief complaint or disability.

3. Daily notes of progress and treatment made by surgeon in charge.

It is unnecessary to enumerate details concerning the card used; the above are points noticed in review of numerous industrial surgical histories, conspicuous by their absence. The importance of a record system that really records is inestimable—establish a good record system before the hospital is built; otherwise a litigation may start which depends on one small record that is not complete—the cost will wipe out a fund sufficient to establish a bed in perpetuity.

The purpose of industry is production for profit, and a great deal of the profit depends on the health and contentment of the real producers, that is, the workers.

Heretofore there have been three main parties concerned in the welfare of the employee—the worker, the manufacturer, and the accident insurance company. These three should get together on a business agreement, and each receive an equal share of the benefits. The worker would receive health service worthy of the name, and none is too good; the employer would see an increase in production through a healthy and contented working force and a lessened labor turnover; the insurance company would profit accordingly. A result of the combination would be the community, making a circle around the triangle.

It seems a destructive attitude for one class to criticize another, and certainly does not get anywhere in solving the problem. The writer firmly believes that no final adjustment of things will be reached until the three classes concerned get together on an equal basis, each considering the other necessary to the plan. Perhaps the idea is too new, or sounds too idealistic for these strained times, but eventually there will be an adjustment of this problem and some such plan will be the working basis.

There are some things that cannot be done, and one of them is the prompt and efficient organization of group hospitals, with all their ramifications, by the State or Federal Government; somehow or other, politics creeps in, with its consequent inefficiency and endless red tape, which has the inevitable result of slowing up the machinery. The competition which would be stimulated by the group plan should keep up a better standard of efficiency. Legislation is a necessary aid, but the better plan is to prove that good service is the only right way, and not to compel employees to toe the line because of the law. This is not speaking in disparagement of the United States Public Health Service; however, this splendid organization is hindered at every turn by lack of funds for absolutely necessary work, such as hospitals for sick soldiers, and salaries for those who do the work. It already has too much to do.

In conclusion, what use will the work done during the great war, both in the Army at the front and in industry at high pressure at home, be to us, if not applied for the good of industry, its logical place? The establishment of group industrial hospitals, as outlined above, is thought to be a practical and reasonable answer to the solution of the problem of the industrial cripple, injured by accident or disabled by some other health hazard.

The Federal Board for Vocational Training estimates that there are among the injured veterans of the World War between ninety and one hundred cases of men whose speech became absolutely unintelligible as the result of mouth or neck wounds, aphasis, or other causes. Twenty-five per cent of these men are still in the hospital and 50 per cent are in training, or approved for training. The courses followed are agriculture, auto mechanics, commercial courses, and chemistry.

There are probably several thousand men throughout the country who became deaf in one ear, or who have suffered slight impairment of hearing in both ears. However, there are only about 200 for whom lip-reading is necessary. Therefore, the approximate number of hearing and speech defect cases will be about 300.

Health is the second blessing that we mortals are capable of—a blessing that money cannot buy.—Walton.

Health is the vital principle of bliss,
And exercise, of health. —Thomson.

Venereal Diseases and the Hospital

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THE NEED FOR HOSPITAL FACILITIES IN THE VENEREAL DISEASE PROGRAM*

By C. C. PIERCE, Assistant Surgeon-General United States Army.
Washington, D. C.

If the program outlined by the Public Health Service for the eradication of the so-called venereal diseases, gonorrhea and syphilis, is to be successful, it is of the utmost importance that some method be devised by which proper hospital facilities can be offered to many of these cases, and their admission into hospitals be at least as easy and as free from red tape as the admission of any other communicable disease ordinarily accepted by hospitals.

Regardless of the large amount of gynecological surgery made necessary by gonorrheal infections, regardless of the many victims of the neglected, untreated conditions caused by the Neisser infections and lues that apply daily to the hospitals for treatment, hospitalization of persons infected with these diseases is still in the era of the barber surgeon. Instead of accepting for treatment these diseases while they are amenable to treatment they are pushed from post to pillar, neglected, ignored, despised and shunned until they reach the stage of chronicity, frequently with irreparable changes.

I cannot but feel that this, in a large measure, is due to the fact that boards of managers and staffs are still under the "spell" that persons infected with venereal diseases are morally unclean and should be "plagued for their sins."

In a recent discussion in Chicago, Dr. William Allen Pusey discussing this phase, made use of the following forceful argument:

"I always have a feeling of regret when the moral issues are raised in these discussions on the medical aspects of the venereal diseases. I believe in discussing the moral side of this subject, but there is also a medical side—a sanitary side—which is worthy of discussion, and the invariable injection of the moral questions into every discussion of the sanitary and medical aspects simply confuses the discussion. We medical men understand—a fact which we apparently often are not given credit for—that there is a moral side to the venereal diseases, but we also understand that the subject is one which is capable of discussion as a medical and sanitary problem alone. The venereal diseases are diseases. They can be handled as diseases, and unless they are so handled we will never, in my opinion, get anywhere with them. We can not overcome the dominating influence of the sexual appetite as a factor in this subject. Education, religion, conscience, honor, fear, will influence a part of the community, but they will not hold the submerged tenth, to say nothing of their slight restraining influence upon a large part of the other nine-tenths. If I am convinced of anything, it is that to handle the venereal problem we must tackle it as a physical problem. I am ready to support all measures for the betterment of mankind, and for the improvement of his moral status, but I am not willing to lose sight of the fact that the venereal diseases are diseases and that, to control them, they must be handled as such."

It is a sad commentary on the medical profession and hospitals that until very recently it was impossible to have a venereally infected patient admitted.

It is true that, in isolated instances, in cases where an impending operation might be demanded, it was possible with a good deal of "pull" to have such a patient "pass the portals." But to enter a patient for a venereal disease per se was as difficult as for the proverbial camel to pass through the eye of a needle.

The blame for this state of affairs, however, is not entirely at the door of the hospital, but largely due to failure on the part of the medical profession to recognize the seriousness of these conditions, and to consider their consequences in the light of a public health issue.

Who does not remember the time when the treatment of these diseases was in the hands of the corner druggist, and the quack and charlatans thrived and waxed rich on the despised stepchild of the medical profession?

So persistently has this attitude of indifference and intolerance to the ravages of venereal diseases been carried out in our civil life that, upon the mobilization of the army, this important and sorely needed division was totally unprepared for the emergency and much valuable time was lost in extending treatment to the draftees who came to the camps in large numbers with well defined infections.

Major James Bayard Clark, M.C., U.S.A., in an article published in the *Journal of the American Medical Association*, August 26, 1919, in speaking of this neglect, writes as follows:

"In practically all but one branch of medicine, when the war broke out, there was a fairly well defined system which governed and held together the work of each department and served as a basis whereby it could be lifted up, whole, as it were, and transferred into the army service as a useful and workable unit.

"General surgery, for one, was well organized and prepared at once to begin creditable war work. The pathologic laboratory was laid out along such precise and practical lines that it was carried over with ease. Internal medicine, as ever, knew its way about and was ready on short notice to be mustered in and play its part; but the department of medicine which dealt with genito-urinary ills, the very one which was so sorely needed (and the one which will for a long time still in civil life be sorely needed) somehow or other did not seem to be held together in the same portable sense as the others. So the Medical Department of the Army was constrained to collect such loose pieces of this particular branch as could be found, and cement them into the semblance of a specialty and courageously meet the situation to which necessity and a drafted army gave such sudden birth. Since that time there has developed in our camps and cantonments and in our service abroad much that will go to make up a

*Read before the Twenty-first Annual Convention of the American Hospital Association, Cincinnati, September 8-12, 1919.

useful beginning in that campaign against the sexual infections which is now plainly ahead."

Very few men indeed appeared at camp requiring surgical or medical care, but one has only to peruse the report of the Provost-Marshal-General to get an idea of the enormity of the venereal problem.

The American Hospital Association, at its annual convention, Atlantic City, September, 1918, went on record as endorsing the government program which advocated the admission to hospitals of persons affected with venereal diseases requiring bed care. Few hospitals are yet willing to accept these cases; and, when they do admit them, the care and treatment is not carried on with enthusiasm and sympathetic interest.

To ascertain the attitude of the hospitals toward this phase of the venereal disease program, a questionnaire was sent out on August 5, 1919, to twelve prominent hospitals. The following analysis of the answers received from ten of the hospitals would seem almost to deny the endorsement of the American Hospital Association: Two of the hospitals did not reply even after various letters and telegrams had been sent. Five answered yes to every question. One answered no to every question. The remaining four had various conditions. To the question, "Are acute venereal infections accepted for treatment?" one replied, "Yes, syphilis and chancroid." A second, "Occasionally, if patient can afford private room and special nursing." The other two said, "No."

The second question, "Are acute complications of gonorrhea and syphilis accepted for treatment?" received the following replies: From one, "Gonorrheal arthritis and epididymitic and syphilitic iritis, also pus-tubes are accepted." A second, "Acute complications of syphilis—yes; gonorrhea—no." The third: "Depends upon the condition for which treatment is required and the state of our wards. Whether they can be cared for without danger to the other patients." The fourth said, "No."

To the third question, "Are surgical cases having acute venereal infections accepted for treatment?" One answered, "If surgical condition is acute;" another "Under certain circumstances;" a third, "If surgical condition is emergency gonorrhea—yes; otherwise, no. In the case of syphilis, yes, under all conditions;" the fourth, "Depends upon the surgical condition and need for immediate surgical treatment."

To the fourth question, "Are children affected with gonorrheal vaginitis accepted for treatment?" one answered, "When vaginitis is a complication of another condition"; another, "No, not for this condition. Patients are admitted for other conditions and are found to have gonorrheal vaginitis." The other two said, "No."

To the fifth question, "Are infants affected with ophthalmia neonatorum accepted for treatment?" one answered, "On ophthalmic service if they present themselves." One said, "Yes," the other two "No."

To the sixth question, "Are adults with gonorrheal ophthalmia accepted for treatment?" one said, "Yes, if any present themselves." The remaining three said, "No."

It is hardly necessary to state that the majority of patients suffering from venereal infections are ambulatory, and comparatively few require detention in hospitals. Clear differentiation must be made between the patient requiring bed care and the prostitute who is detained as an active carrier. The Public Health Service does not approve of detaining such carriers (prostitutes) in a general hospital ward except in cases of great emergency.

The need of hospital beds for syphilis has been ably discussed by Dr. John H. Stokes in an article published in THE MODERN HOSPITAL in the May, 1919, issue, and reflects the attitude of the Service. In summarizing the ways in which the general hospitals should contribute to the management of syphilis, Dr. John H. Stokes, says:

"1. Syphilis is often recognized by the hospital serologist when no other signs present themselves. The hospital serologist, by reason of training and environment, is specially fitted to be the preformer of an authentic and trustworthy Wassermann, which is badly needed in these days. Of 500 patients examined by Horner (Boston City Hospital), 16 per cent had syphilis, although only 2 per cent had been identified by other means than the Wassermann.

"2. Syphilis needs, for the proper care of its medical, surgical, neurological and special complications, the prolonged observation, cooperative diagnosis, and control which only a stable, well-organized hospital service can supply.

"3. The actual technique of the intensive treatment of syphilis requires beds. Therapeutic control, a low mortality, and the successful management of the very sick patient, which is much commoner in syphilis than is generally realized, all demand something more than ambulatory facilities.

"4. The hospital bed service is needed for a brief but necessary quarantine, which can be carried out without the slightest risk to other patients or the medical and nursing staff.

"5. Well-organized treatment for syphilis, such as a hospital service can provide, has the same value in syphilis as sanatorium care has in tuberculosis. It is a factor in inculcating a sense of social responsibility in the patient and in encouraging ideals of rehabilitation and cure.

"6. Organized hospital care of syphilis provides centers for the follow-up control so essential in the disease, for the development of the record system, and for the outside professional cooperation essential to adequate treatment.

"7. The hospital service provides the only place in which syphilis can be made a subject of thorough study and research.

"8. The existence of a specially organized service for syphilis is of material assistance to any hospital group of diagnosticians in the prevention of blunders which arise from overlooking syphilis as a factor in diagnosis, and in the protection of staff and patients from the dangers attendant upon the admission of unrecognized contagious cases to wards and operating rooms without adequate supervision.

"On each of these points it is possible for any active syphilological service to supply an abundance of concrete evidence. I have seen three extragenital infections in one year in the surgical personnel of a five-hundred-bed hospital, all of which could have been prevented had there been adequate diagnosis of syphilis. The diagnostic blunders of a staff which lacks a syphilologist and a syphilological service to put an edge on the recognition of the disease are often serious, but are properly the subject of a medical rather than a general presentation. Emphasis should be placed on the need of beds for intensive treatment. The administration of arsyphenamin has enough complications and enough serious effects, direct and indirect, to justify the same period of hospital observation as a tonsillectomy. The really intensive treatment of syphilis, if carried out by a dispensary, must either subject the patient to unreasonable risk, or sacrifice effectiveness by reductions in dosage and loss of therapeutic control."

The need for beds for persons infected with chancroid is limited to those cases which require surgical interference and extensive and frequent dressing, measures which cannot be carried out in the home. This disease being found most frequently in connection with poverty and unhygienic surroundings is essentially a problem requiring hospital recognition.

The need for hospital detention for patients affected with gonorrhea is not as great as might be supposed. As has been pointed out previously, the majority of these patients are ambulatory, and in but few instances require bed care.

In the male the character of cases requiring hospital attention are in the main, prostatitis, cystitis, perineal abscesses, retention, epididymitis, and the rarer infections

of the renal pelvis and the kidney. Gonorrheal endocarditis and arthrites seem to have escaped the odium and are generally considered hospital cases and freely admitted as such.

In the female inflammation of Bartholin's glands, very acute vaginitis, cystitis, and inflammation of the uterus and its appendages, are the conditions for which hospital care is requested.

In a recent article published in THE MODERN HOSPITAL, I pointed out the fact that syphilis and gonorrhea are not more readily communicable than typhoid fever or pneumonia, and are more easily nursed. Precautions similar to those observed in the care of persons ill with typhoid fever will prevent the spread of gonorrhea, syphilis, and chancroid to other patients, nurses, and attendants.

The facilities for examination, diagnosis, and treatment, adequate isolation, equipment, and a system of social service and follow-up have been put forward as financial reasons why hospitals could not take venereal diseases.

Few diseases have been so neglected, so deprived of the hospital treatment they have needed, as gonorrhea, syphilis and chancroid. Popular prejudice is probably responsible in a great measure for this neglect. The psychological effect on the patient who occupies a bed adjoining that of one infected with a venereal disease is not so much the fear of contracting the disease, as a revulsion against the propinquity of a "bad disease," since "bad diseases" are contracted by those who indulge in sexual wrong-doing. Far from being true, such people are, therefore, "bad people" and should not be allowed to occupy the same ward with persons infected with typhoid or pneumonia, regardless of their past history. The hospital, by not admitting the venereal disease patient, endorses this belief.

When the Service urges the hospitalization of certain cases of venereal diseases, it does not mean to make an arbitrary demand that every hospital, regardless of its equipment, finances, etc., shall receive a definite number of beds for gonorrhea and syphilis any more than it asks that so many beds be set aside for typhoid fever cases where it urges that all typhoid patients be hospitalized, but rather it asks that hospitals should function as centers of disease prevention and admit, when necessary, patients who are spreading dangerous communicable diseases, regardless of the manner in which such patients became infected.

The hospital of today has assumed a greater responsibility than merely providing bed space and ordinary nursing care; it has come to be, or should be, an educational institution where the young doctor and the young nurse who are to interpret the new public health of tomorrow, receive the greater part, the humanizing part of their education. Here they make the personal contact that is so essential to public health education.

If the hospital continues in its attitude of merely providing care and comfort for those cases which require no isolation, no special responsibility and refuse those cases which are unfortunately stigmatized, which are difficult of management and less attractive than surgery, or the interesting medical cases not constituting public health problems, the hospital falls far short of functioning as a modern scientific institution for the conservation of health.

The medical profession as a whole must be made to realize that the venereal disease problem is a serious one, that venereal disease patients are a menace to the public, and that their isolation and treatment is as serious a concern as the prevention and eradication of any other communicable disease. Unfortunately, this awakening to the realization of the serious rôle played by venereal diseases in the life history of the human race is slow.

I again beg liberty to repeat that these diseases do not represent a greater hospital problem than typhoid fever, pneumonia, etc., and the brief but necessary detention and care can be carried out without any more danger to other patients or to the nursing and medical staff than that of other communicable diseases.

"The Need for Hospital Facilities in the Venereal Disease Program" literally interpreted, means admission to hospitals for all cases of venereal diseases needing bed care; better diagnosis for all cases, so that obscure conditions which are frequently luetic may be discovered, classified, and treated accordingly, and better follow-up work for all cases, so that end results may be obtained, all of which would be reflected in a more sound public health.

DISEASE, AN ECONOMIC FACTOR

In a comprehensive report on disease conditions in the old world, Dr. Hugh S. Cumming, Surgeon General of the United States Health Service, states that the man-power of the world is woefully short, not only owing to the casualties of the war, but also to the ravages of disease and famine. Regions, where in normal times large quantities of raw materials and foods are produced, have been left unproductive as an effect of the presence of epidemics of diseases that have been, and are even now, sweeping through Asia and central Europe. Old world production in a number of countries has ceased or become inadequate as a result of disease. In British India in 1917 there were 267,002 deaths from cholera, 62,277 from smallpox, 437,036 from plague, and 4,555,221 from "fevers," a large proportion of which were due to malaria.

The economic loss caused by disease conditions is inestimable. Statistics for the countries that are suffering the most, are not available; however, approximation of the economic loss may be made from illustrative comparisons. Malaria fever, a disease with a low mortality, has 7,000,000 victims annually in the United States, though the death rate is not high. Each case of malaria represents a loss of several working days, and a lowered efficiency. In tropical countries malaria is more prevalent and more deadly than in this country. In India it causes one-fifth of the total deaths. With the eradication of hookworm diseases in the Philippines, health experts assert, the efficiency of labor would be increased 30 per cent. Diseases such as pneumonia, typhoid fever, and tuberculosis, aside from their high death rate, have an extremely large number of sick days, involving tremendous economic loss.

All of these diseases are preventable, and Dr. Cumming urges increased activity on the part of health authorities to assist in bringing about conditions conducing to health and maximum human efficiency.

LICENSING MATERNITY HOSPITALS

The State Commissioner of Health of Ohio recently defined the maternity or lying-in hospital, as any institution admitting maternity cases, whether a maternity hospital, a department or ward of a general hospital, or a private home used for this purpose. It is necessary for such hospitals to obtain a license from the State Department of Health and to comply with the regulations in regard to sanitary equipment and proper record-keeping in these hospitals. The term of the license is for one year, and the name of the licensee, the number of patients to be accommodated, and the location of hospital or home must be stated.

PROGRESS IN EQUIPMENT AND OPERATION

Conducted by FRANK E. CHAPMAN

Superintendent, Mount Sinai Hospital, Cleveland, Ohio

HOSPITAL TABLE LINEN

One of the great problems of hospital administration today, is the securing of proper table napery. There is an inborn feeling in most of us that linen tablecloths and napkins are absolutely necessary, and there is no question that with the pre-war differential between linen and cotton goods, it was economy to buy a fairly high percentage of linen goods. This condition, however, has changed materially with the increasing cost of linens and with the inability to get them.

A great deal of experimentation has been conducted and is still in process in an attempt to secure a better appearance for cotton table linen. There is being put on the market a new process cotton article for which great claims are made.

It is claimed that this treated cotton which is a very high grade piece of cloth, will retain a linen finish throughout the life of the cloth. The fabric is subjected to a process that penetrates into the fibre and is guaranteed to last. There is every appearance of linen of high grade in the cloth after it is washed.

If the claims of the manufacturer can be borne out in actual wear, there is no question but that this step offers one solution of cutting down table linen bills of institutions.

EDITOR.

THE CARE AND UPKEEP OF BOILERS

By S. S. BALCOME, Engineer, Worcester, Mass.

The care of the boiler consists largely in keeping it clean inside and out. Impurities, such as sand and mineral salts in solution in the feed-water, cause trouble inside the boiler, and soot from the fire causes trouble on the outside, or fire side, of the boiler.

Sand in the feed-water may be washed out through the blow-off pipe whenever the boiler is cooled down, but lime and some other salts which are carried in the feed-water as a solution are thrown out of solution and precipitated on the hot sheets and tubes of the boiler. Lime, especially, will form a very hard scale on boiler tubes and shell, and is sometimes hard to remove. Many companies advertise boiler compounds guaranteed to dissolve scale of all kinds in a boiler, some of them having a compound which is a "cure-all," others requiring a sample of feed-water for analysis before prescribing for the boiler. Many boiler compounds are valuable when used rightly, but no one of them is effective for all cases of dirty boilers. Mechanical cleaning is recommended whenever it is possible to reach the different parts of the boiler; otherwise a good boiler compound should be used.

By mechanical cleaning is meant cleaning inside the boilers by scraping and chipping off the scales, and by using a steam, air, or water-driven turbine. Water tube boilers having reasonably straight tubes can easily be cleaned by the turbine cleaner, of which there are several types. A turbine cleaner should move slowly through the tube, because if it is permitted to cut in one place too long, the tube itself will be weakened. When the turbine sticks and binds, it should be drawn back about four inches and be allowed to cut in that place for a few seconds. This should be done until the cleaner passes through freely.

As the water evaporates, the solids and some of the mineral salts make sludge or form hard scale on the tube, crown sheet, or bottom of the shell. There is a certain pressure in the boiler of, say, 100 pounds to the square inch, or seven and two-tenths tons to the square foot. If a boiler is coated with scale on the inside, the fire on the outside will heat the sheet tube to a high temperature, because the scale is not a good conductor of heat. When the metal has been heated to a red heat, it has lost its strength, and the pressure in the boiler blows it out like a bubble, cracking the scale and allowing the water to come into contact with the metal, cooling it, and causing it to remain in that form.

This is called a bag on a boiler shell or tube, and if it is very large, or bulges very much, and the metal has stretched, it must be cut out and replaced with a patch. If the bulge is not bad, it may be brought to a red heat by using torches, and hammered back into place. This should be done under the direction of a man experienced in boiler work. A bag on the bottom of an externally fired boiler, if not cut out or hammered back into place, is a source of danger, because it forms a pocket where settlings will accumulate, thus filling up and perhaps getting overheated again.

In water tube boilers, scale may form in one or more tubes, causing them to bulge or even rupture, and in that case the only remedy is to take out the defective tube. This is one of the advantages of a water tube boiler, as a new tube will make it as good as new, while the patching of a cylindrical boiler brings a seam directly over the fire.

Oil or grease also will cause a boiler to bag and leak at the seams, and in hospitals and like institutions care should be taken to keep it from getting into the boiler, especially when using exhaust steam from reciprocating engines for heating. These engines, in general, are equipped with oil separators connected in the exhaust pipe, but a certain per cent will get by the separators. This per cent should be very small when good separators are installed and properly managed, but what does pass through the separator slowly accumulates in the exhaust pipes and heating system and works through the return pipes to the open heater or return reservoir, and from there to the boiler.

These heaters and return reservoirs, which are generally steel tanks, should be overflowed two or three times

each day, to remove any oil which may have passed into the tank or heater, and is floating on top of the water. Steam from turbines does not contain any oil, is clean, and furnishes the best boiler feed water when condensed. This is one argument in favor of using steam turbines in an institution.

The soot which accumulates on the surfaces of boilers should be cleaned off by blowing jets of steam over them (if a water tube boiler), and through the tube (if a fire tube boiler), at least once every eight to twelve hours. In addition to this, they should be scraped occasionally. This soot is a very poor heat conductor and insulates the boiler tubes from the heat of the fire and gases. Both these conditions, scale inside the boiler and soot on the heating surfaces, will lower the efficiency of a boiler and result in a high temperature of the flue gases in the uptake and chimney.

Temperature measuring instruments installed for instantly indicating the temperature of the flue gas are of great value, and should be a part of the equipment of all boiler rooms of any size. There are many types of these instruments, both indicating and recording.

Boiler furnaces made of brick should be kept in repair. The whole boiler setting should be looked over once in a while and all cracks and openings in the walls of the setting and between the boiler shell and the brick work should be filled up. This is a measure of economy, because there is always a negative pressure in the boiler furnace, due to the chimney draft, and this will cause air to be drawn in through every opening. This air cools the boiler and lowers the efficiency of the whole steam generator.

Water glasses and water columns should be blown out by the blow-off valve attached to the bottom of the water column, twice every day, at least. This keeps the passage between the boiler and water column open so that the glass does not show a false water level. Bottom blow-off valves should be opened once a day to change the water and blow out the dirt at the bottom of the boiler. In the opinion of the writer, the real value of this rests in the fact that a certain percentage of the water is changed.

Stop valves on the main and branch steam lines at the top of the boiler are sometimes left to corrode, through neglect, so that in case of an accident to a steam pipe or valve, when it is necessary to shut the main stop valve quickly, the valve in question cannot be operated. Periodic opening and shutting of these valves will eliminate this trouble, and also show when the valve needs packing. Repacking around the stem once or twice a year is generally sufficient to keep the valve stem in good order. Check valves on feed water pipes need repairing, or at least regrinding once a year, especially if a reciprocating pump is used, as the impulses of the pump cause the check valve to open and shut with every stroke, even when a duplex pump is used.

When fire tubes, such as those in the horizontal return or vertical boilers, are installed, the repairs are very slight if the boilers are kept clean, the furnace being in need of a good share of the attention because fire bricks will burn away and fall out of place, thus requiring the furnace walls to be patched up, or even newly lined.

Most water tube boilers are fitted with baffles, either across or along their tubes, to guide the hot gases to every part of the boiler on their way to the chimney. These baffles are made up of a mixture which resembles fire brick, and are made to resist the action of high temperature. They generally stay in place very well, but there is always a chance of some of the blocks falling out of place, due mainly to expansion and contraction of the boiler tubes. If these baffles are out of repair, the hot gases cut through them straight to the chimney and thus by-pass part of the boiler tubes, and cut down the efficiency of the boiler. This can be determined by trying the temperature of the flue gases, which will be higher than normal. The temperature of flue gases just before entering the chimney should run about 450° F. to 600° F., depending on the rate of boiler operation. Steam and water leaks are an indication of neglect in any boiler room.

Feed-water heaters and purifiers of the open type, which consist of a chamber in which a series of pans are hung (these pans having holes in the bottom, through which the water trickles), need to be cleaned periodically. The pans will collect scale-forming substance from the water, and this can be scraped off when cleaning the heater. In these open heaters, the feed-water and the exhaust steam come into contact, thus warming the water and condensing the steam. Warming the water to as high a temperature as possible causes the lime to precipitate and adhere to the heater pans, which is a great deal better than permitting it to pass into the boiler and attach itself to the tubes. Closed heaters, which are composed of a shell through which exhaust steam circulates, and coils of pipe inside through which feed-water is forced, cannot be so easily cleaned.

Economy in the boiler room can be had only by putting it in charge of an efficient man, because the amount of money saved or wasted depends upon the men directly concerned with the operation of the boilers. Instruments for indicating amount of feed-water used, its temperature, amount of coal used, proportion of ash, temperature of flue gases, per cent of CO_2 in flue gases, and amount of steam generated in each boiler, are all very useful, but must be watched and tested in order not to give false readings.

For example, an apparatus for automatically weighing feed-water indicates, when total amount of water in certain length of time is divided by coal used in that time, an evaporation of nine pounds of water per pound of coal. Now this is good, but supposing that the blow-off of the boiler leaked, and, as sometimes happens, water for sinks is taken from the feed line, and perhaps the feed valve of an empty boiler leaks from the feed line into the boiler, —the water leaking in these places is counted as evaporated from the boilers. Of course that is incorrect.

Now, as to the engine, the first requisite is proper adjustment of the valves, and good condition of valve and valve face surfaces, pistons and cylinders of reciprocating engines. Smoothness of running and cleanliness of engines and room comes next. If an engine knocks, there is usually some trouble which might be fixed, although somes types of engines have an inherent knock or thud which cannot be eliminated.

Sometimes there are cases of neglect in unseen places. The writer will cite one instance of a poor condition of the engine room which could run along indefinitely without being noticed by outsiders: the engine exhausted into an exhaust system where the pressure was supposed to be two pounds above atmosphere, but, due to the fact that there was no drain at the foot of an exhaust pipe which ran up to the room, the back pressure would vary from one to four pounds (due to condensed steam collecting in the exhaust pipe), and in this case it would make a difference of sixty horsepower. This loss did not show, but it was there and working continuously.

All reciprocating engines should be tested by a steam engine indicator at regular periods, and the horsepower calculated. This has a tendency to keep a good adjust-

ment of the engine valves. In the writer's opinion, steam turbines will ultimately replace reciprocating engines in hospitals and like institutions, on account of their simplicity and adaptability to electric machinery. In point of economy, and also quietness of running, the reciprocating engine has the best end of the argument, but economy in use of steam is not necessary when all the exhaust can be used for heating buildings, laundry purposes, or heating water. This can apply at least eight months of the year in almost any hospital, as the power and light requirements are overbalanced by heat requirements in any part of the year when some heat is needed in a building.

One phase of this subject on which much has been already said is the loss of heat from bare and badly covered live steam pipes. This loss is great enough to pay for pipe covering in a short time, and they should be covered, flange joints and all. Frequently, when repairs are made on steam pipes, the covering which has been taken off has not been put on again, and the pipe stays bare, doing business in heat wasting twenty-four hours a day. The care which engines and boilers receive is shown in a measure by the general appearance of the rooms and machinery.

It does not pay to try to run the power plant with too little help, because the machinery is complicated and delicate enough to require proper care if it is going to do that for which it was installed. Many a piece of apparatus has been sent to the junk pile or disconnected and not used because directions as to its proper use were not heeded.

Engines will consume a certain amount of steam per horsepower hour if in good condition, but if allowed to run too long without attention, will use more than necessary. For instance, valves and pistons will wear and leak, and should be examined about once a year. It is not enough to keep the external parts of an engine in order, as the valves and pistons need nearly as much care as the bearings.

This is a broad subject, on which much more might be written, but it is hoped that these general directions for the care of boilers and engines will prove helpful to some readers.

EDITOR'S NOTE—The emphasis laid on the use of turbines is to he questioned. The author's idea is excellent, but the difficulty lies in the fact that the hospital plant involves boiler feed, vacuum and house water pumps, of which desirable forms of the turbine type are not yet obtainable. Consequently reciprocating pumps have to be used, which place more oil into the system than do the reciprocating engines, even though turbines are used in place of reciprocating engines.

STORING YOUR COAL

Hospitals that burn the kinds and sizes of coal that may safely be stored do well to provide themselves with facilities that will make it possible for them to take advantage of the low price ebb of the market in the spring, and at the same time insure themselves an adequate fuel supply.

Not all kinds and sizes of coal can, of course, be safely stored, nor can they be stored without regard to the size of the piles or the surrounding conditions. Any good southern Illinois size coal, however, which does not contain a great amount of duff or fine coal may be stored, and any anthracite or West Virginia Pocahontas coal, if the piles do not exceed ten feet in height and are not stored too close to steam pipes or hot boilers. Franklin County Mine Run can also be successfully stored if the height of the piles is kept under ten feet and the coal is not kept in storage beyond a six months' period. It is well not to store two different kinds of coal together, such as eastern and western coals. The danger from spontaneous combustion is due more to improper separation in piling the coal than to the kind of coal stored. To prevent this combustion coal should be so piled that air may circulate through it freely and thus carry off the heat due to the oxidation of the carbon, or it should be so closely piled that air cannot enter into the pile and oxidize the fine coal. Much of the attempted ventilation of coal piles has been unsuccessful on account of the use of too few ventilating pipes. Where a sufficient number are used and placed close together, successful ventilation results.

Should a coal pile begin to burn as the result of spontaneous combustion, any attempt to quench it with an inadequate amount of water will not prove effective. Water is effective only when it can be applied in sufficient quantity not only to extinguish the fire but to cool the entire mass of coal. The best way to prevent the loss of coal through spontaneous combustion is to inspect and test the pile regularly. If the temperature reaches 150 degrees Fahrenheit, the pile of coal should be carefully watched and if it rises to 180 degrees Fahrenheit, the coal should be removed as promptly as possible. It should then be thoroughly cooled before it is replaced in the bin.

Coal should be stored when it is dry, and care should be taken not to cause excessive breaking. When putting it into the stock bins, wood, paper, greasy waste, and other easily combustible materials should be carefully removed, as all too often they form a starting-point for fire. It is scarcely necessary to remind our readers that coal should not be stored near hot steam pipes because the susceptibility of coal to spontaneous combustion increases rapidly as the temperature rises.

Incidentally, after coal has been delivered, its weight can be checked roughly with the weight tickets furnished by the seller. Assuming that the bin is empty before a new supply of coal is put in, the quantity may be roughly checked by estimating the number of cubic feet of coal delivered. This result when multiplied by the weight of the coal per cubic feet as given below, will give the approximate number of pounds of coal in the bin.

The average weight of a cubic foot of anthracite (hard) coal varies with the sizes into which it is broken and with the kind of coal or the vein from which the coal comes. The latter variation is nearly ten per cent, but the figures given below are the average of several different kinds and will probably represent, within two or three per cent, the average coal purchased. Red ash coal is somewhat lighter than that giving white ashes, hence two sets of values are included in this table.

Average Weight of Anthracite Coal in Pounds Per Cubic Foot

Size	White Ash	Red Ash
Egg	57.0	53.0
Stove	56.5	52.5
Nut	55.5	52.0
Pea	53.5	51.0
Buckwheat	53.0	50.5

The weight of bituminous (common soft) coal varies even more than that of anthracite, depending upon the locality in which the coal is mined. The best figure to use is 47 to 55 pounds per cubic foot.

Accuse not Nature, she hath done her part;
Do thou but thine! —Milton.

The world is a comedy to those who think, a tragedy to those who feel.—Walpole.

News of the Hospitals and Sanatoriums

Hospital superintendents, architects, and others who have an interest in the hospital field, will confer a favor by sending to the Editor of our Department of Hospital News any items of news relating to hospital construction, changes in administrative personnel, the organization of new hospitals, and kindred subjects.

GENERAL

Plans have been drawn for a $150,000 nurses' home to be built shortly by the Seaside Hospital, New York City, N. Y.

A donation of $500,000 has been given the Henry Phipps Institute, Philadelphia, Pa., by the family of Henry Phipps.

The new county tuberculosis hospital at Plainview, N. Y., has been opened and Dr. A. J. Davis is the superintendent in charge.

The Vancouver General Hospital is planning the erection of a new nurses' home and the conversion of the present nurses' home into a maternity hospital. The estimated cost is $500,000.

One million two hundred and fifty thousand dollars will be expended in the erection of the new county home and hospital to be located in Alden, N. Y. The project will be under way shortly.

The Baker Sanatorium, Inc., Lumberton, N. C., will establish a $100,000 general hospital. Fifty thousand has been subscribed by R. D. Caldwell, Horace M. Baker, and Annie Ruth Caldwell Baker.

The 13th annual meeting of the American Home Economics Association will be held at the Antlers Hotel, Colorado Springs, Colorado, from Thursday, June 24th to Tuesday, June 29th, inclusive.

The Israel Hospital of Brooklyn, N. Y., is under construction and will be completed this summer. The cost of building and equipping will be approximately $1,000,000. The hospital will be non-sectarian and will conduct a dispensary for the poor of South Brooklyn.

Four DH-4 army airplanes have been ordered converted into airplane hospital ambulances. Each machine will be equipped with two basket litters for patients and accommodation for a pilot. The design for the model was made by A. V. Veriville, aeronautical engineer at McCook Field, Dayton, O.

The annual report of the New York State Hospital Commission for the last fiscal year discloses the fact that in the thirteen civil state hospitals for the insane, built to house 29,344 patients, 35,579 patients have been housed. This is 21 per cent over their certified capacity. During the year a total of 46,086 patients were treated in these hospitals.

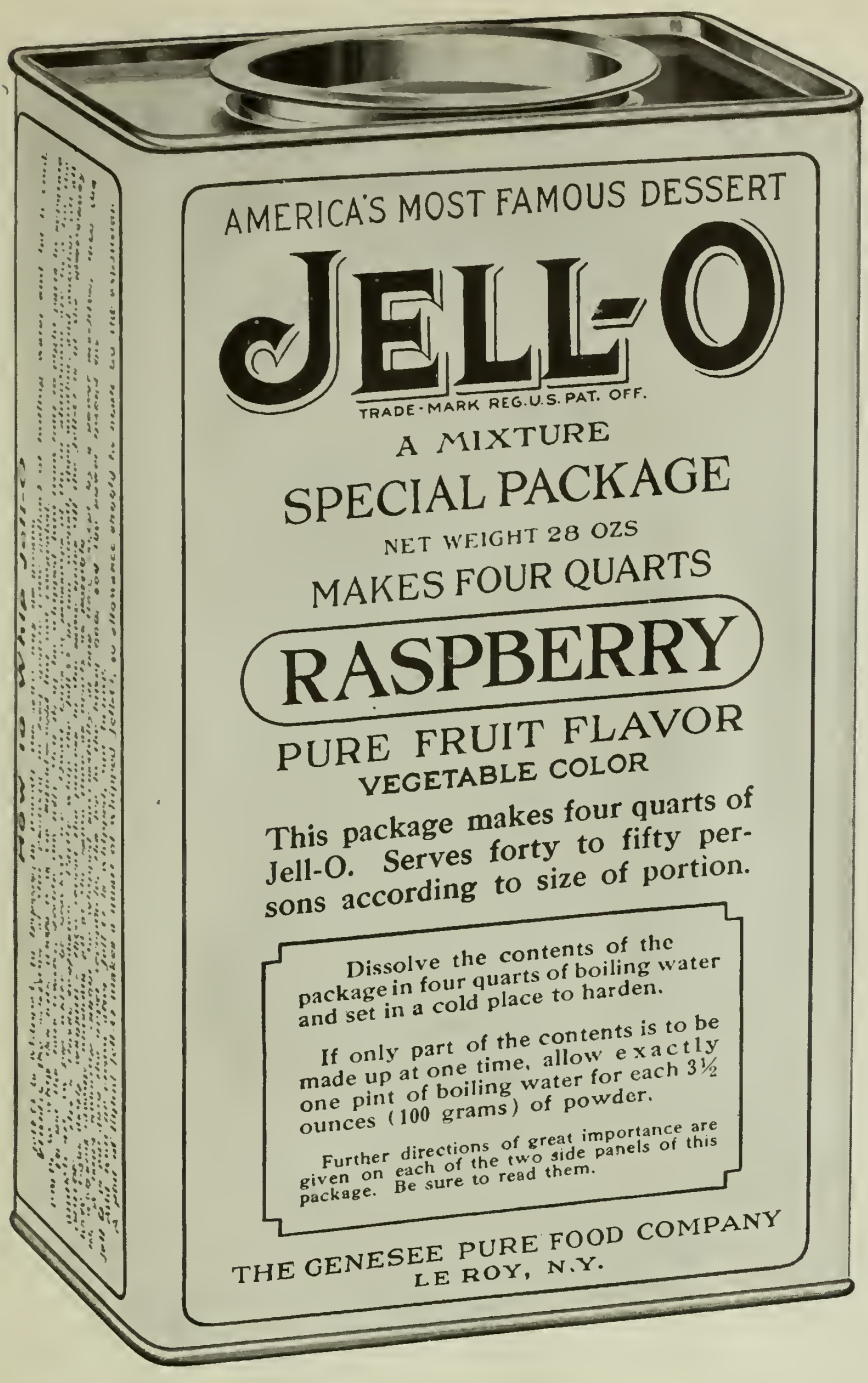
The portable buildings in New York City owned by the Rockefeller Foundation and used for special war purposes have been presented to the New York Association for Improving the Condition of the Poor. They will be transported to Staten Island to be used for health resort purposes. The A. I. C. P. contemplates purchasing a site of eighty acres on Staten Island, and here mothers and children of the city tenement districts will be entertained during the summer, and nursed back to health.

Two bills now pending in the New York Legislature will, if passed, lead to the establishment of a State Psychopathic Hospital at an expenditure of $700,000, $25,000 of which will be appropriated immediately. Plans for the Psychopathic Hospital have been completed by the Hospital Development Commission, with the advice of many building experts. The best features of the Henry Phipps psychopathic clinic, the Boston Psychopathic Hospital, and the Psychopathic Hospital at Ann Arbor, Mich., have been adopted.

The League of Red Cross Societies held its first general council meeting in Geneva, Switzerland, March 2 to 9, inclusive. The delegates assembled at the Hotel de Ville, and held morning and afternoon section meetings for detailed discussions of their separate subjects. A general meeting open to the public was held March 9, under the presidency of M. Motta, president of the Swiss Confederation; M. Georges Milsom gave an interesting talk on the origin, organization, and purpose of the league. During the congress an appeal for relief was received from the countries in central and eastern Europe. The congress decided to undertake the extension of voluntary relief work provided that the League of Nations would assure food, clothing, and transport, for the affiicted peoples.

In recognition of the growing demand for qualified women to fill the increasing number of positions in psychiatric social service, the American Red Cross has decided to provide a few scholarships for specially well qualified nurses who wish to secure the training necessary for this work. Courses in this subject have been established at the more prominent schools of social work in the country, and accepted candidates will be allowed a choice of schools. For admission to these schools, the educational requirement is a college degree or its equivalent. Information regarding the whole field of psychiatric social service with its interesting work, its opportunities for development, its present remuneration, and its various phases of actvity may be obtained by writing to Miss V. M. Macdonald, Organizer of Social Work, National Committee for Mental Hygiene, 50 Union Square, New York City. Nurses who wish for further information regarding the scholarships for this special course of study should apply directly to Miss Elizabeth Fox, Director, Bureau of Public Health Nursing, American Red Cross, Washington.

(Continued on adv. page 42.)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NEWS OF THE HOSPITALS AND SANATORIUMS

Continued from page 504

GENERAL

St. Paul's Hospital at Manila, P. I., will have approximately 175 beds. Plans and specifications are now being prepared and will probably be ready about September 1, 1920.

Rawlins, Wyo., has approved a bond issue of $100,000 for the erection of the first unit of a County Hospital, to be built as a memorial to the soldiers serving in the world war. Under the leadership of N. R. Greenfield and the local Board of Trade, $50,000 has been raised toward the equipment.

A $1,000,000 bond issue for the erection of a county hospital in Akron, O., has been voted, and a board of trustees for the direction of the hospital has been appointed by the governor, as follows: E. C. Shaw, H. A. Rudd, John Gauthier, and Thomas Swain. It is planned to devote one unit of about one hundred beds to a contagious disease ward.

Boone County, Missouri, has voted $175,000 for a general hospital under the new state law providing for optional county general hospitals. A wooded site of four acres in Columbia, Mo., has been secured. The initial building will have a capacity of sixty beds; plans have been, however, for future expansion to two or three hundred beds.

Plans have been drawn for four buildings to be erected at the Memorial Hospital, Winston-Salem, N. C., at a cost of $750,000. The buildings will be: an administration building, an annex (private rooms) for white, an annex (general hospital) for colored, and a power house and laundry. The total capacity will be one hundred and fifty beds.

The Norwich State Hospital will open a new reception building in the near future. The building will accommodate one hundred patients; provision has been made for fifty male and fifty female patients. A tunnel, for use in bad weather, connects this building with the others of the institution. A modern hydro-therapeutic department will be a feature of the new building; the latest approved type of electric, as well as steam baths has been installed. The total cost will be about $250,000.

The affiliation of the Connecticut Training School for Nurses of the New Haven Hospital, with the School of Medicine, Yale University, is announced. For two years the medical and bedside clinical instruction of the student nurses of this training school (established in 1873) has been given by members of the faculty of the School of Medicine, but not until this past month has the affiliation been recognized officially. Coincident with this important announcement have the New Haven Hospital directors decided to secure more graduate nurses for head nurse and general duty positions, and ward helpers, to establish the eight hour day schedule for the student nurses, and to arrange for their vacations.

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